

ORIGINAL INSTRUCTIONS - according to Directive 2006/42/EC, Annex I 1.7.4.1 and according to Supply of Machinery (Safety) Regulations 2008, Annex I 1.7.4.1

OPERATOR'S MANUAL

VM3055

VM3065

VM3075

VM3083

Seedbed cultivator

Contents

1 GENERAL INFORMATION

Note to the owner	1-1
Intended use.....	1-4
Prohibited usage.....	1-4
Electro-Magnetic Compatibility (EMC).....	1-5
Manual scope and required training level.....	1-6
Product Identification Number (PIN)	1-8
Product identification	1-9
Operator's manual storage on the machine.....	1-9
Implement orientation.....	1-10

2 SAFETY INFORMATION

Safety rules and signal word definitions	2-1
General recommendations	2-2
Illustrations.....	2-3
Local obligations	2-3
Fire or explosion prevention	2-3
Hazardous chemicals.....	2-4
Starting up the implement safely	2-5
Travelling on public roads.....	2-6
Operating the implement safely	2-8
Stopping the implement safely.....	2-10
Maintenance	2-11
Personal Protective Equipment (PPE).....	2-12
Safety requirements for fluid power systems and components - hydraulic systems	2-13
Implement stability.....	2-14
Ecology and the environment	2-15
Safety signs.....	2-16

3 CONTROLS AND INSTRUMENTS

Information

Operating principles	3-1
----------------------------	-----

4 OPERATING INSTRUCTIONS

Commissioning the unit

Check before use	4-1
------------------------	-----

Starting the unit

Connection to the tractor.....	4-2
--------------------------------	-----

Parking the unit

Disconnection and parking	4-4
---------------------------------	-----

5 TRANSPORT OPERATIONS

Road transport

Transport position.....	5-1
-------------------------	-----

Preparing for road transport

Folding and unfolding.....	5-2
----------------------------	-----

Shipping transport

Lifting the implement.....	5-4
----------------------------	-----

6 WORKING OPERATIONS

Adjustments

Working adjustment.....	6-1
Tines	6-3
Adjustment of the working depth	6-3
Adjustment of the level board	6-4
Front flex board position	6-6
Adjustment of the rear rollers.....	6-7
Adjustment of the maximum flow tine	6-10
Adjustment of the long finger rear harrow	6-11

7 MAINTENANCE

General information

General	7-1
Torque.....	7-3
Grease fittings and intervals	7-6
Pressure washing.....	7-7
Fluids, lubricants, and capacities	7-8

Maintenance planning

Overview.....	7-9
---------------	-----

After the first 10 hours

Nuts and bolts.....	7-9
---------------------	-----

Every 20 hours

20 hours grease fittings	7-10
--------------------------------	------

Every 100 hours

Nuts and bolts.....	7-11
---------------------	------

Every six years

Hydraulic hoses	7-12
-----------------------	------

As required

Wheels and tires	7-13
------------------------	------

Storage

End of season service	7-14
Implement long-term storage and/or disposal	7-15
Ordering parts and / or accessories.....	7-17

8 TROUBLESHOOTING

Fault code resolution

General	8-1
Troubleshooting	8-1

9 SPECIFICATIONS

Technical data	9-1
Dimensions	9-2
Fluids, lubricants, and capacities	9-3
Tire pressure	9-3

10 ACCESSORIES

General information	10-1
Levelling device	10-1
Tines	10-2
Rollers	10-4
Wings lock system.....	10-5
Signal plates and lights	10-5

11 FORMS AND DECLARATIONS

European Community (EC) Declaration of Conformity.....	11-1
--	------

1 - GENERAL INFORMATION

Note to the user

This manual has been prepared to assist you in the correct procedure to run in, to drive, to operate, to adjust and to maintain your new implement.

This implement has been designed and built to give maximum performance, economy and ease of operation under a wide variety of conditions.

Prior to delivery, your implement was carefully inspected both at the factory and by your dealer to make sure that it reaches you in optimum condition. To maintain this condition and assure trouble-free operation it is important that routine services, as specified in this manual, are carried out at the recommended intervals.

Read this manual carefully (especially Chapter 2 that covers the safety information) and keep this manual in a convenient place for future reference. DO NOT operate or permit anyone to operate or service this implement until you and/or other persons have read this manual. Read the manual, it will save you time and hassle later. Lack of knowledge can lead to accidents. Employ only trained operators who have demonstrated the ability to operate and service this implement correctly and safely. Contact your dealer for assistance providing the required training to your operators. Contact your dealer to obtain additional manuals or alternate language versions.

If at any time you require advice that concerns your implement, do not hesitate to contact your authorized dealer. He has factory-trained personnel, genuine service parts and the necessary equipment to carry out your service requirements.

NOTICE: *This implement has been designed and built in line with the requirements put forward by the European Directives 2006/42/EC and 2014/30/EU.*

Always use genuine KONGSKILDE - SEKO SRL Service Parts or parts that match at least the same quality, reliability and functionality as the equivalent original Service Parts when you service and repair your implement and do not modify your implement without a written permission of the manufacturer. Failure to do so will void the responsibility of the manufacturer.

Check local road legislation before you drive the implement on public roads.

When you operate interchangeable implement, make sure that the implement complies with the product directives and regulations.

As this publication is distributed throughout our international network, the implement illustrated, either as standard or as an accessory, may vary according to the country in which the implement is to be used. Low specification configurations, as chosen by the customer, may deviate from the specifications given.

Several figures in this operator's manual show the safety guarding or the additional guards, legally required by certain countries, open or removed to better illustrate a particular feature or adjustment. The implement must not be used in this condition. For your own safety, make sure that all guards are closed or replaced before you operate the implement.

OWNER ASSISTANCE

We at KONGSKILDE - SEKO SRL and your KONGSKILDE - SEKO SRL dealer want you to be completely satisfied with your investment. Normally, your dealer's Service Department will handle any problems with your implement. Sometimes however, misunderstanding can occur. If your problem has not been handled to your satisfaction, we suggest you to contact the owner or General Manager of the dealership, explain the problem and request assistance. When additional assistance is needed, your dealer has direct access to our branch office.

COMPANY POLICY

Company policy, which is one of continuous improvement, reserves the right to make changes in design and specification at any time without notice and without obligation to modify units previously built.

All data given in this book is subject to production variations. The information in this publication is provided on the basis of information that was available at the time that the manual was written. Settings, procedures and other items can change. These changes can affect the service that is given to the implement.

Dimensions and weights are approximate only and the illustrations do not necessarily show the implement in standard condition. For exact information about any particular implement please consult your dealer. Make sure that you have the most current and complete information from your dealer before you start any job.

ACCESSORIES AND OPTIONS

Your implement has been designed to operate in a wide variety of soils/crops and conditions. Nevertheless additional equipment may, in certain cases, be required to improve the implement performance. A list of this additional equipment is given in the "Accessories" chapter in this manual. Use only those accessories designed for your implement.

PARTS AND ACCESSORIES

Genuine KONGSKILDE - SEKO SRL parts and accessories have been specifically designed for KONGSKILDE - SEKO SRL implements.

We would like to point out that "non-genuine" parts and accessories have not been examined and released by KONGSKILDE - SEKO SRL. The installation and/or use of such products could have negative effects upon the design characteristics of your implement and thereby affect its safety. KONGSKILDE - SEKO SRL is not liable for any damage caused by the use of "non-genuine" parts and accessories.

Rely on your authorized dealer to supply you with genuine KONGSKILDE - SEKO SRL parts only. These parts are covered by our warranty and will give you the best performance.

See the parts catalog or browse the KONGSKILDE - SEKO SRL portal to find service parts for your implement.

When you order service parts, always quote the model and serial number printed on the Product Identification Number (PIN) plate.

LUBRICANTS

Your dealer sells a selection of specially formulated lubricants based on own engineering specifications.

Recommended lubricants for your implement are listed in the maintenance chapter.

WARRANTY AND LIABILITY

Warranty

This Warranty covers the product to which it was annexed at the time of purchase.

With this Warranty, you guarantee the product against any material or manufacturing defects for the duration of 12 MONTHS from the original date of purchase.

If during the warranty period there are defects in materials or workmanship (at the original date of purchase), we will repair or (at our discretion) replace the defective product or its components under the terms and conditions set out below, without any charge for the costs of spare parts. The service department reserves the right to replace defective products or their components with new or revised products or parts. All products and components replaced will become the property of the company KONGSKILDE - SEKO SRL.

Conditions

Warranty interventions will only be carried out if the defective product is presented within the warranty period together with the original sales invoice or a purchase receipt (showing the date of purchase, the type of product and the name of the retailer).

KONGSKILDE - SEKO SRL reserves the right to refuse warranty interventions in the absence of the aforementioned documents or in the event that the information contained therein is incomplete or illegible. This Warranty will lapse if the model or serial number shown on the product has been modified, deleted, removed or made illegible.

All parts shipped upon request of warranty will be invoiced and any recognition of the warranty will only be credited after receipt of the damaged piece and related verification by our Technical Department.

The Purchaser will be responsible for all charges relating to shipping, packaging and labour of both any defective parts and those recognised under warranty.

The charges deriving from the labour necessary for the replacement of the defective part and for the set-up of the machine are excluded from the warranty.

For petrol, diesel, electric, hydraulic engines, for hydraulic components for electric or electro-hydraulic control panels and in any case for all those components assembled on the machine but not manufactured by SEKO, the warranty conditions of each individual manufacturer apply.

The following are excluded from this Warranty:

- Periodic maintenance and repair or replacement of parts due to wear and tear;
- The consumable material (components that are expected to require periodic replacement during the useful life of a product, such as tools, lubricants, filters, etc.).
- Damage or defects due to use or improper treatment of the product, for purposes other than normal professional use;
- Damage or changes to the product resulting from improper use, including:
 - Treatments causing damage or physical, aesthetic or superficial alterations;
 - Incorrect installation or use of the product for purposes other than those envisaged or non-compliance with the instructions on installation and use;
 - Improper maintenance of the product, not in accordance with the instructions on correct maintenance;
 - Installation or use of the product that does not comply with the technical or safety regulations in force in the country where the product is installed or used;
 - Condition or defects of the systems to which the product is connected or in which it is incorporated;
 - Repair interventions or repair attempts by unauthorised personnel;
 - Adjustments or modifications made to the product without prior written authorisation by the manufacturer, updating of the product exceeding the specifications and functions described in the instruction manual or modifications made to the product to make it comply with the national or local technical or safety standards in countries other than those for which the product was specifically designed and manufactured;
- Negligence;

- Fortuitous events, fires, liquids, chemicals or other substances, flooding, vibrations, excessive heat, inadequate ventilation, current surges, excessive or incorrect input supply voltage, radiations, electrostatic discharges, including lightning, other external forces and impacts.

Exclusions and limitations

Except as noted above, KONGSKILDE - SEKO SRL issues no warranties (express, implied, statutory or otherwise) regarding the product in terms of quality, performance, precision, reliability, suitability for a particular use or otherwise.

If this exclusion is not fully or partially permitted by applicable law, KONGSKILDE - SEKO SRL excludes or limits its warranties to the maximum extent permitted by applicable law.

Any warranty that cannot be completely excluded will be limited (within the terms permitted by applicable law) to the duration of this Warranty.

The only obligation KONGSKILDE - SEKO SRL under this Warranty is to repair or replace the products under these warranty terms and conditions KONGSKILDE - SEKO SRL disclaims all liability for loss or damage regarding products, services, this Warranty or otherwise, including economic or intangible losses – the price paid for the product – loss of profits, income, data, enjoyment or use of the product or other associated products – indirect, incidental or consequential loss or damage. This applies to loss or damage resulting from:

Impairment of the operation or failure of the product or associated products as a result of defects or unavailability during the time it is held KONGSKILDE - SEKO SRL or at other authorised assistance centre, resulting in downtime, loss of useful time or interruption of activity;

Imperfect performance of the product or associated products.

This applies to losses and damages under any legal theory, including negligence and other wrongful acts, breach of contract, express or implied warranties and strict liability (even if KONGSKILDE - SEKO SRL or the authorised assistance centre have been informed of the possibility of such damages).

Where applicable law prohibits or limits these disclaimers, KONGSKILDE - SEKO SRL excludes or limits its liability to the maximum extent permitted by applicable law.

Some nations, for example, prohibit the exclusion or limitation of damages due to negligence, gross negligence, willful default, fraud, and other similar acts. The liability of KONGSKILDE - SEKO SRL under this warranty shall in no event exceed the price paid for the product, it being understood that, where applicable law imposes higher limits of liability, such limits shall apply.

The purchaser must inform the manufacturer, in writing, of any defect that occurred within 8 days of the occurrence of the same.

Reserved legal rights

Applicable national laws grant purchasers statutory rights in relation to the sale of consumer products.

This warranty does not affect the rights of the purchaser established by the laws in force, nor the rights that cannot be excluded or limited, nor the rights of the customer against the retailer. The customer may decide to assert the rights due at its sole discretion.

The Court of Padua (Italy) is competent for any dispute.

CLEANING YOUR IMPLEMENT

When you use a high pressure washer, do not stand too close to the implement and avoid directing the jet at electronic components, electrical connections, breathers, seals, filler caps, and so on.

Clean decals only with a soft cloth, water and a gentle detergent. DO NOT use solvent, gasoline or other harsh chemicals to clean decals. Decals could be removed or get damaged.

DISASSEMBLY OR SCRAPPING

The critical condition of the equipment is the complete wear and tear of all components. When the costs of repair, restoration or replacement of the individual components and/or assemblies become economically impractical, a decision is made on decommissioning the equipment.

When your implement is taken out of service because it is damaged beyond repair or has reached the end of its useful life, disassembly, scrapping and/or recycling of components must be performed only by a qualified technician with service instructions, and in compliance with local law and regulations.

Intended use

KONGSKILDE - SEKO SRL seedbed cultivator can only perform the usual work in agriculture. Only connect the seedbed cultivator to a tractor that corresponds with the specifications of the implement and is legal to use.

The implement may only be used for soil preparation in farming.

The work must occur under reasonable conditions, or thorough agricultural knowledge and authorised operation, on a normal cultivation that has a reasonable extension without foreign matter and the like. The performance of the implement will depend on the crop, the condition of the field, the ground, and finally the weather.

Intended use implies that you observe the prescriptions concerning adjustment, operation and maintenance in the

instruction manual. Observe altogether the safety instructions as well as common rules concerning technical safety, working practices and road safety. Also read the spare parts catalog and use original spare parts. If necessary contact an authorised workshop.

If you notice degradation of performance, contact your dealer for assistance. He may have useful information for improvements, or a kit may be available to enhance the performance.

With respect for the routine maintenance and with operating conditions, the assigned service life for the implement is minimum seven years.

Prohibited usage

NOTICE: *DO NOT use this implement for another purpose than intended by the manufacturer (as described in the manual, shown by the decals, or in other product safety information provided with the implement). These information sources define the intended use of the implement.*

Any other use beyond the intended use is regarded as misuse and requires the authorization of the manufacturer. The manufacturer is not responsible for any damage that results from the improper use of the implement. The user bears that risk.

Contact your local dealer when you are not sure about the use or function of your implement in a particular application (for example crop, variety, unique conditions, etcetera) or you do not know if there is a need for special equipment or special precautions.

No parts must be fitted to this implement, which have not been released by KONGSKILDE - SEKO SRL. They might affect the implement operation, safety of the user or other people, stability or wear characteristics of the implement. They may also void the homologation approval obtained for your country and compliance with EC directives.

Do not make changes to the implement and its construction without the permission from the manufacturer. The manufacturer does not accept any responsibility for damages that results from unauthorized modification.

Electro-Magnetic Compatibility (EMC)

This machine complies strictly with the European Regulations on electro-magnetic emissions. However, interference may arise as a result of add-on equipment which may not necessarily meet the required standards. As such interference can result in serious malfunction of the unit and/or create unsafe situations, you must observe the following:

- Ensure that each piece of non- KONGSKILDE - SEKO SRL equipment fitted to the machine bears the CE mark.
- The maximum power of emission equipment (radio, telephones, etc.) must not exceed the limits imposed by the national authorities of the country where you use the machine.
- The electro-magnetic field generated by the add-on system should not exceed **24 V/m** at any time and at any location in the proximity of electronic components.

Failure to comply with these rules will render the KONGSKILDE - SEKO SRL warranty null and void.

Manual scope and required training level

Introduction to this manual

This manual gives information about the use of your KONGSKILDE - SEKO SRL machine as intended and under the conditions foreseen by KONGSKILDE - SEKO SRL during normal operation, routine service, and maintenance.

This manual does not contain all the information that relates to periodic service, conversions, and repairs that only trained service personnel can perform. Some of these activities may require appropriate facilities, technical skills, and/or tools that KONGSKILDE - SEKO SRL does not supply with the machine.

The manual contains the chapters as shown on the Contents pages. See the Index at the end of this manual to locate specific items about your KONGSKILDE - SEKO SRL machine.

Normal operation

Normal operation consists of the use of this machine for the purpose KONGSKILDE - SEKO SRL intends by an operator that:

- Is familiar with the machine and any mounted equipment or towed equipment
- Complies with the information on operation and safe practices as specified by KONGSKILDE - SEKO SRL in this manual and by the signs on the machine

Normal operation includes:

- Preparation and storage of the machine
- Addition and removal of ballast
- Connection and disconnection of mounted equipment and/or towed equipment
- Adjustment and configuration of the machine and equipment for the specific conditions of the job site, field, and/or crop
- Movement of components into and out of working positions

Routine service and maintenance

Routine service and maintenance consists of the daily activities necessary to maintain the proper machine function. The operator must:

- Be familiar with the machine characteristics
- Comply with the information on routine service and safe practices as specified by KONGSKILDE - SEKO SRL in this manual and by the signs on the machine

Routine service can include:

- Fueling
- Cleaning
- Washing
- Topping up fluid levels

- Greasing
- Replacing consumable items such as light bulbs

Periodic service, conversions, and repairs

Periodic service consists of activities that are necessary to maintain the expected life of the KONGSKILDE - SEKO SRL machine. These activities have defined intervals.

Trained service personnel familiar with the machine characteristics must perform these activities at the defined intervals. Trained service personnel must comply with the information on periodic service and safe practices as partly specified by KONGSKILDE - SEKO SRL in this manual and/or other company literature.

Periodic service includes:

- Oil change service for the engine, hydraulic circuits, or transmission
- Periodic exchange of other substances or components as required

Conversion activities rebuild the KONGSKILDE - SEKO SRL machine in a configuration that is appropriate for a specific job site, crop, and/or soil conditions (e.g., installation of dual wheels). Conversion activities must be done:

- By trained service personnel familiar with the machine characteristics
- By trained service personnel that comply with the information on conversion as partly specified by KONGSKILDE - SEKO SRL in this manual, assembly instructions, and/or other company literature

Repair activities restore proper function to a KONGSKILDE - SEKO SRL machine after a failure or degradation of performance. Dismantling activities occur during the scrapping and/or dismantling of the machine.

Trained service personnel familiar with the machine characteristics must perform these activities. Trained service personnel must comply with the information for repair as specified by KONGSKILDE - SEKO SRL in the service manual.

Before you operate

Read this manual before you start the engine or operate this KONGSKILDE - SEKO SRL machine. Contact your KONGSKILDE - SEKO SRL dealer if:

- You do not understand any information in this manual
- You need more information
- You need assistance

All persons training to operate, or who will operate this KONGSKILDE - SEKO SRL machine should be old enough to possess a valid local vehicle operating permit (or meet other applicable local age requirements). These persons

must demonstrate the ability to operate and service the KONGSKILDE - SEKO SRL machine in a correct and safe manner. related procedure to assemble the received components.

Additional documents

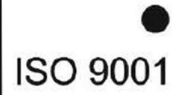
The machine is normally delivered pre-assembled. If shipped completely disassembled, the machine is delivered with an assembly instruction. The assembly instruction shows the packaging depending on the kind of shipment and the

Product Identification Number (PIN)

The Product Identification Number (PIN) is a serial number that identifies the implement.

The serial number, model and other specifications are on the plate.

Provide your KONGSKILDE - SEKO SRL dealer with the model and the PIN when you order parts.

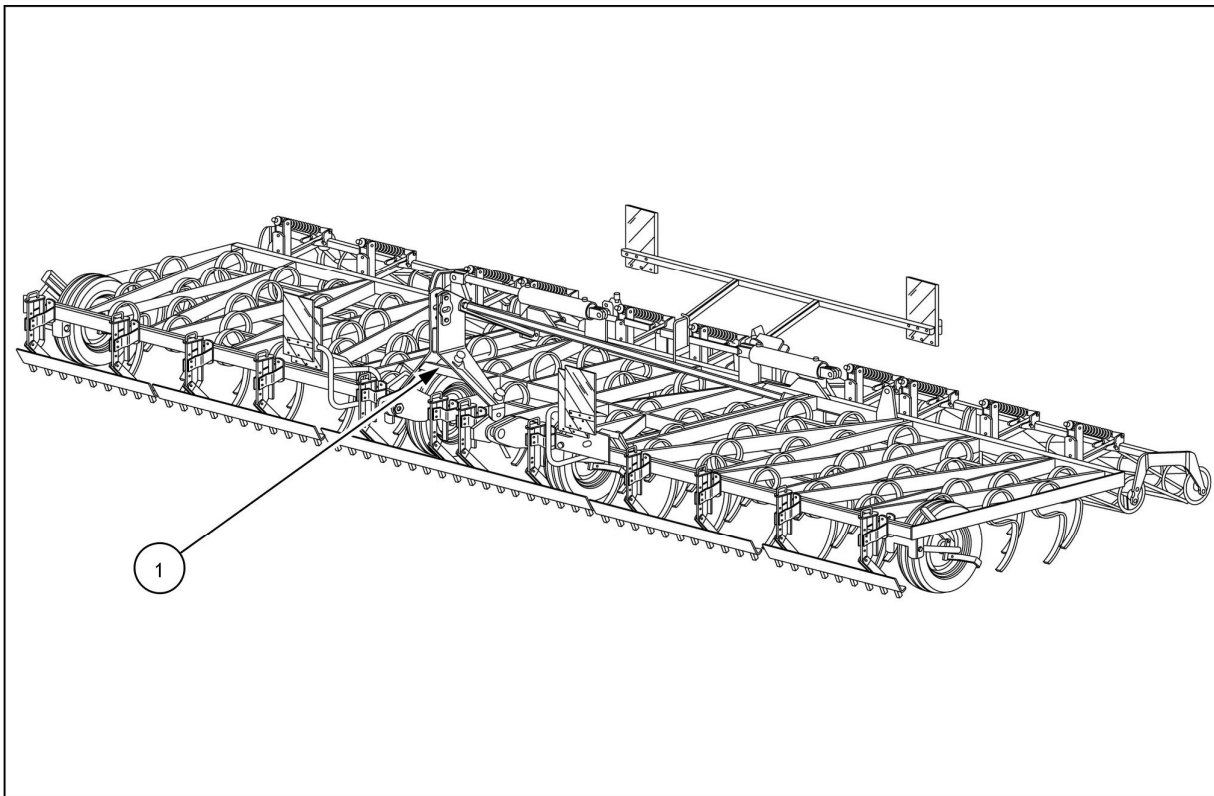
		 Kongskilde - Seko Srl Via Gorizia, 90 - 35010 Curtarolo (PD) Italy			
MODELLO - MODEL MODÈLE - MODELL TIPO - TYPE TYPE - TYP MATRICOLA - SERIAL NUM. N. DE SERIE - DIESERIE NUM. N. OMOLOGAZIONE - OMOLOGATION NUM. N. OMOLOGATION - BESTÄTIGUNG					
kW MASSA - MASS - MASSE - MASSE: a vuoto - empty à vide - vakuum max. ammessa - max. allowed max. Admis - max. zugelassen		R.P.M. kg kg kg		CARICHI AMMESSI - LOADS ALLOWED CHARGES ADMIS - LADUNG ZUGELASSEN: gancio di traino - draw-eye - crochet de traction - der Ösenhaken primo asse - first axle premier axe - ersten brett secondo asse - second axle deuxième axe - Zweite brett terzo asse - third axle troisième axe - drittes brett quarto asse - fourth axle quatrième axe - viertes brett	
		LUBRIFICANTI RACCOMANDATI - RECOMMENDED LUBRICANTS - LUBRIFIANTS CONSEILLES - EMPFEHLEN SCHMIERMITTELN ARNICA 46 BLASIA 220 GR MU EP 2		PARTI DA LUBRIFICARE - PARTS TO LUBRICATE - PARTIES A LUBRIF. - ERSATZTEILEN ZU SCHMIEREN VEDI LIBRETTO ISTRUZIONI LOOK INSTRUCTION BOOK VOIR LE LIVRE D'INSTRUCTION SEHEN DAS UNTERRICHT - BUCH	

Product identification

NOTE: Do not remove or change the Product Identification Number (PIN) plate (1) on the implement.

The implement data are on the Product Identification Number (PIN) plate (1).

The PIN plate (1) is on the front cross beam of the implement.



1

For future reference, record your implement model and PIN in the spaces below.

Model

Product Identification Number (PIN)

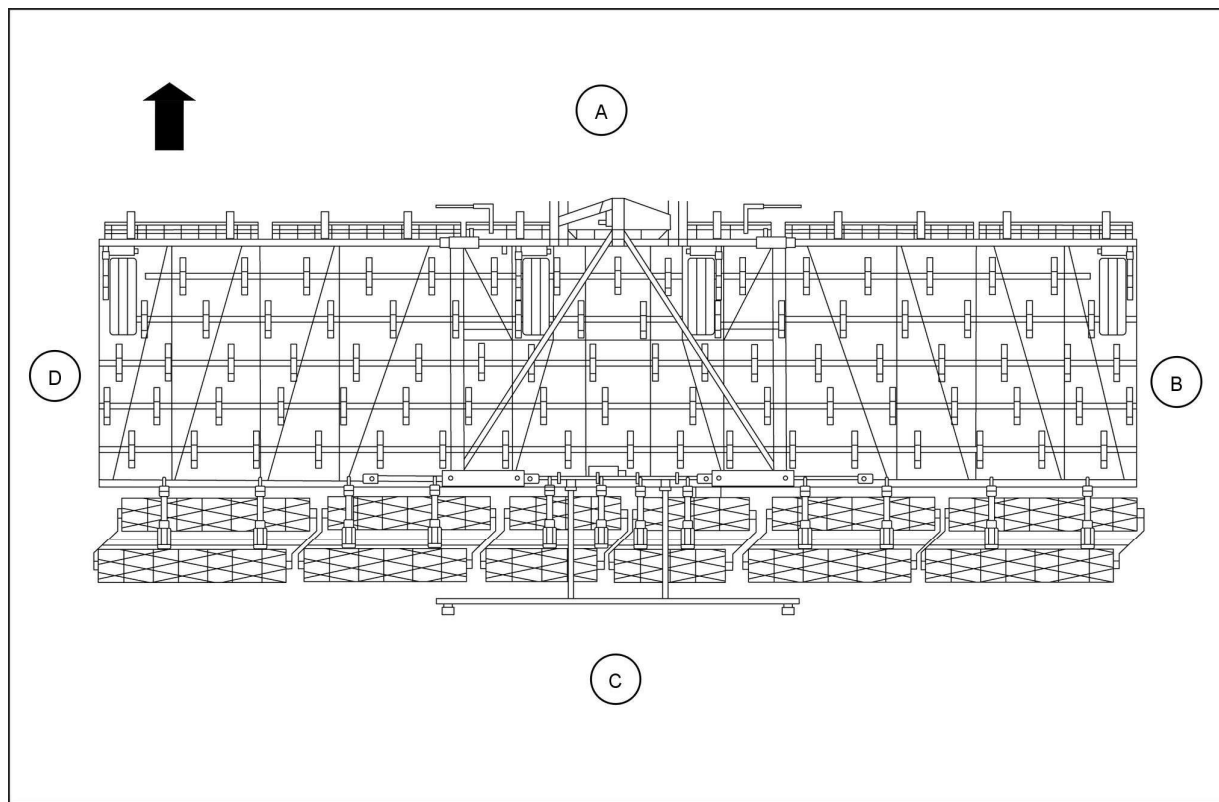
Operator's manual storage on the machine

Keep this operator's manual protected and accessible on the tractor whenever you transport or operate the implement.

Implement orientation

NOTE: To determine the left-hand side and the right-hand side of the implement, stand behind the implement and face the direction of travel during working operation.

The following overhead view illustration is a general representation of the implement. The illustration indicates the sides, front, and rear orientations of the implement as referred to throughout this operator's manual.



1

NOTE: The arrow indicates the direction of the implement during working operation.

- (A) Front of the implement
- (B) Right-hand side of the implement
- (C) Rear of the implement
- (D) Left-hand side of the implement

2 - SAFETY INFORMATION

Safety rules and signal word definitions

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

General recommendations

Most farm machinery accidents can be avoided by the observance of a few simple safety precautions.

- This operator's manual contains important information concerning operation, maintenance and adjustment of the implement. Furthermore, this operator's manual mentions and emphasizes all the safety instructions.
- Read the operator's manual thoroughly before you start, operate, service, or carry out any other operation on the implement. Even though you have been driving a similar implement before, you must read the manual. This is a matter of your own and other people safety. A few minutes reading will save you time and hassle later. Lack of knowledge can lead to accidents.
- In case of an accident, stop the tractor, turn off the engine and remove the key from the contact, assess the situation and call emergency services when required.
- Your implement has been designed with safety in mind. However, caution and care is important to prevent accidents from occurring. It is very important that anyone using the implement does so correctly and with the utmost care, avoiding exposing themselves and others to unnecessary danger.
- The implement may only be used for agricultural purposes as an interchangeable implement coupled to a tractor.
- The implement must be operated only by responsible persons who have been adequately trained and authorized to use the implement. Never leave the implement to others before you have made sure that they have the necessary knowledge to operate the implement safely.
- The operator of the implement must ensure the safety of other people when working with the machine or transporting it.
- The implement may not be used by minors
- Never let the implement run without supervision.
- Always keep a first aid kit handy.
- The implement has only one operator station and this is the cab of the tractor, which is a one man operated implement. Never permit anyone to ride on or in an implement. Do not allow riders on the implement or tractor; do not allow people to stand on the ladder or steps. Your view to the left or right will be obstructed and a rider risks to fall from the implement or tractor during unforeseen or abrupt movements. There is no need for other people on or around the implement during normal operation.
- Do not use this implement as a lift, ladder or platform to work at heights.
- The operator must not consume alcohol, drugs or narcotic and hallucinogenic substances that reduce his or her attention span while using the equipment.
- Before you work on the implement, disengage all drives, stop the engine and remove the ignition key. Wait for the rotating parts to run down.
- Never work around the implement with loose clothing, jewelry, watches, long hair and other loose or hanging items can be pulled in by the moving parts of the implement.
- The weight of mounted machines (including their loads) can influence tractor manoeuvrability and stability and a means of assessing stability.

Illustrations

WARNING

Illustrations in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment.

Replace all shields before operating the machine.
Failure to comply could result in death or serious injury.

NOTE: Some of the illustrations in this manual have been obtained by photographing prototypes. Standard production machines may differ in some details.

Local obligations

Your machine may be equipped with special guarding or other devices in compliance with local legislation. Some of these require active action by the operator.

Therefore, check local legislation on the usage of this machine.

Fire or explosion prevention

1. Crop material, trash, debris, bird nests or flammable material can ignite on hot surfaces.
2. Inspect the electrical system for loose connections or frayed insulation. Repair or replace loose or damaged parts.
3. Do not store oily rags or other flammable material on the implement.
4. Do not weld or flame cut any items that contain flammable material. Clean items thoroughly with non-flammable solvent before you weld or cut with a flame.
5. Do not expose the implement to flames, burning brush or explosives.
6. Promptly investigate any unusual smells or odors that may occur during the operation of the implement.

Hazardous chemicals

1. If you are exposed to or come in contact with hazardous chemicals you can be seriously injured. The fluids, lubricants, paints, adhesives, coolant, etcetera. required for the function of your machine can be hazardous. They may be attractive and harmful to domestic animals as well as humans.
2. Material Safety Data Sheets (MSDS) provide information about the chemical substances within a product, safe handling and storage procedures, first aid measures and procedures to be taken in the event of a spill or accidental release. MSDS are available from your dealer.
3. Before you service your machine check the MSDS for each lubricant, fluid, etcetera. used in this machine. This information indicates the associated risks and will help you service the machine safely. Follow the information in the MSDS, on manufacturer containers, as well as the information in this manual when you service the machine.
4. Dispose of all fluids, filters and containers in an environmentally safe manner in accordance with local laws and regulations. Check with local environmental and recycling centers or your dealer for correct disposal information.
5. Store fluids and filter in accordance with local laws and regulations. Use only appropriate containers for the storage of chemicals or petrochemical substances.
6. Keep out of reach of children or other unauthorized persons.
7. Additional precautions are required for applied chemicals. Obtain complete information from the manufacturer or distributor of the chemicals before you use them.

Starting up the implement safely

Before you attach the implement to the tractor, ensure that the tractor is in good working order and that the brakes are efficient, particularly if you operate on hilly ground. Also, ensure that the hydraulic or pneumatic system is compatible with that of the implement.

The operator can only couple the implement to a tractor as specified in CHAPTER 9 SPECIFICATIONS

When you attach the implement to the tractor:

- Never allow anyone to stand between the tractor and the implement. An unintentional manoeuvre with the tractor may cause serious injury.
- Never go under an unsupported implement.
- Before you start the implement, learn all components of the implement and service equipment
- Before you start the implement, make sure that all subassemblies are fully operational and complete. Pay particular attention to all locks and safety devices.
- Before you start the implement, repair or replace all malfunctioning elements with new ones.
- Never start the tractor until all persons are safely away from the tractor and the implement.
- Make sure that all tools have been removed from the implement before starting the tractor.
- Make sure that all spare part and moving equipment are intact and have been mounted correctly.
- Do not stand near the implement while it is working.

Install all the guards correctly before you use the implement.

Before you start up the implement (for example the first time after a long standstill period), make sure that there are no detached loose parts on the drive line area and on the moving parts of the implement.

Before coupling the implement to the tractor, the operator must secure the tractor against unwanted movements

Travelling on public roads

Comply with the relevant traffic regulations

WARNING

Loss of control hazard!

Uneven brake force exists on left-hand and right-hand brakes. Always use brake pedal coupler when traveling on public roads to ensure brakes are actuated together. Failure to comply could result in death or serious injury.

WARNING

Electrocution hazard!

Contact with overhead power lines can cause severe electrical burns or death from electrocution. Make sure there is enough clearance between equipment and overhead power lines. Failure to comply could result in death or serious injury.

WARNING

Transport hazard!

Observe the local government regulations when driving on public roads. Failure to comply could result in death or serious injury.

WARNING

Impact hazard!

Take care when making turns. The machine rear end swings out when changing direction. Failure to comply could result in death or serious injury.

The implement is built according to the homologation requirements of your country. Do not modify the implement in a sense that would conflict with the national regulations.

If you wish to transport the implement on the public road, make sure that the combination tractor and implement observes the traffic rules in your country. This gives you and your surroundings the best possible safety.

The operators must observe relevant statutory or other national regulations that deal with road safety and labor safety issues.

Before you drive the implement on public roads:

- Check the allowable transport dimensions and weights.
- Install correctly the lighting and the warning panels.

Always observe the principles for permissible axle loads, the total unit mass and the transport gauge.

Observe the tractor manufacturer regulations and recommendations, specifically those relating to maximum transport loads and maximum speed.

Even in similar circumstances, the maximum allowed speed can vary depending on which country you travel in.

Always drive with the statutory lights and safety marking during transport on public road and at night.

Install all the required signs that indicate the vehicle width. Also install all the required lights that indicate the vehicle width during the nightly transport. If in doubt, contact your government department responsible for road transport.

Travel may be restricted to certain road types. Transport may be restricted to daytime or outside peak traffic hours. However plan your route to avoid heavy traffic and peak traffic hours.

Passengers

Do not allow passengers to ride in the tractor unless a specific seat is provided.

During transport, the transportation of people on the top of the implement is strictly forbidden.

Transport safety

Transport the implement only in transport position. Secure the implement for transport. Always activate the mechanical transport safety devices before transport.

Make sure to fit all the hitch pins with retaining pins correctly. Mechanically secure the hydraulic cylinders to prevent cylinders from creeping.

The speed of the tractor during the transport of the implement must comply with local regulations as well as the indications given in CHAPTER 1 GENERAL and CHAPTER 9 SPECIFICATIONS.

The implement must not be transported in conditions of poor visibility.

The operator must have the relevant driving licence and must observe all relevant road rules and signs.

The implement can affect the stability and steering of the tractor during transport.

Drive safe

Do not drive under the influence of alcohol or drugs.

Do not drive on roads with reduced visibility

Never travel at speed in crowded areas.

When you maneuver the tractor with the implement, always be aware and conscious of its size.

The tractor driver must not leave the cabin during transport.

Always consider other road users.

Always adopt safe driving practices. Slow down and signal before turning. Give way to oncoming traffic in all situations, including narrow bridges, intersections etcetera. Pull over to allow faster traffic to pass.

If the implement is marked with a maximum speed limit, never exceed this maximum speed limit.

Always adjust the driving speed to the road and weather conditions. In case of bad road conditions and high driving speeds, big forces may occur and cause overload of tractor and implement.

Drive at a safe speed to ensure control and ability to stop in an emergency.

Lock the tractor brake pedals together. Never use independent breaking at transport speeds.

The implement and the ballast weight influence the driving, steering and braking capacity of the tractor. Make sure that the additional weight of the implement on the linkage does not compromise driving, steering and braking capacity of the tractor. Install front weights or repair the brakes if the tractor is not safe to drive.

Reduce speed during turns. Tractors have not been designed for fast turning. Avoid that the rear end of the implement hits an obstacle.

When you turn during transport pay attention to the overhang and/or oscillating weight of the implement.

Use engine braking when you drive down hills. Do not coast.

Watch for obstructions, particularly if over-width. Observe any load ratings applicable on bridges.

After you finish the transport, before you leave the tractor, always place the implement in parking position, turn off the tractor engine, pull the parking brake, and remove the key from the ignition.

Overhead power lines

Make sure that the total height is as low as possible if you transport the implement near overhead power lines.

If you drive under overhead power lines, contact the owner of the overhead power lines to get information on the rated voltage and the minimum height of the overhead power lines.

Observe the safety distances in the table below.

Rated voltage	Safety distance from overhead power lines
Until 1 kV	1 m (39.37 in)
1 – 110 kV	2 m (78.74 in)
110 – 220 kV	3 m (118.11 in)
220 – 380 kV	4 m (157.48 in)

Operating the implement safely

WARNING

Roll-over hazard!

Special care is required when operating the machine on slopes or in a tilted position. A wrong maneuver or unexpected event could create a dangerous situation.

Failure to comply could result in death or serious injury.

WARNING

Hazard to bystanders!

Always sound the horn before starting the machine. Make sure the work area is clear of other persons, domestic animals, tools, etc. before you operate the machine. Never allow anyone in the work area during machine operation.

Failure to comply could result in death or serious injury.

WARNING

Hazard to bystanders!

THE MACHINE SHALL BE USED BY ONE PERSON ONLY

When the operator identifies somebody in the working area, the operator shall not operate the starting control

NOTE: *Only put the implement into operation according to the instructions from the dealer.*

Never operate the implement under the influence of alcohol, drugs, or while otherwise impaired.

Before you operate the implement, familiarize yourself with all facilities and operating elements. Once an accident happens it is too late to think about what you did.

Examine the work surface for hidden obstacles. Obstacles pose a risk.

Keep people away from the implement during operation. Ask bystanders to leave the field. There is the risk for bystanders to be overrun by the implement. Stop the implement immediately if someone approaches.

The tractor or its implement may strike or crush against a person or pet within the operator area of the tractor. Do not allow anyone to enter the work area. Make sure that the area is clear and operation is safe before you move the implement.

Before you raise or lower the implement, check that nobody is near the implement or touches the implement.

When you operate the implement, always remain seated

in the tractor cab. Operate controls only when seated in the tractor seat, except for those controls expressly intended for use from other locations.

The transportation of people on top of the implement is strictly forbidden at all times.

Avoid using the implement in unsuitable weather conditions. It is better to stop work temporarily rather than to operate in such conditions.

When the operator leaves the tractor cab he is required to safely lower the machine to the ground and secure it against unwanted movements as indicated in the next chapter.

Do not operate the implement during a thunderstorm. If you are on the ground during a thunderstorm, stay away from machinery and equipment. Seek shelter in a permanent, protected structure.

If a lightning from a thunderstorm should strike during operation, remain in the tractor cab. Do not leave the cab. Do not make contact with the ground or objects outside the machine.

Always operate the implement at a safe speed in accordance with the ground conditions. On uneven ground, proceed with the utmost caution to ensure proper stability.

When you turn on hillsides always be careful. Adjust the speed to these conditions.

When you work in the soil, never turn the cultivator so sharply that the tines are forced sideways and backward. It may result in loads far in excess of what the tines are designed for.

Drive in a low tractor gear if you work on hillsides. When you drive up and down and across hillsides, avoid sharp turns.

When you turn during operation, pay attention to the overhang and/or oscillating weight of the implement.

Avoid changing direction abruptly, avoid dangerous pitching of the implement.

Never reverse with the tines in the soil. Raise the cultivator to avoid the tines being overloaded, as this can lead to breakage of the tines.

Pay the necessary attention while you operate next to public roads or footpaths.



DANGER

Danger of death by electrocution !

Pay special attention to the overhead power lines. Always ask the owner of the field about the presence of overhead power lines. Make sure the implement has sufficient clearance to pass in all directions (also with raised or opened implement components). Also think of the radio aerial(s) or any other accessory or parts which may have been added afterwards.

High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines.

Should a contact between the implement and an electric power line occur, then the following precautions must be taken: Stop the implement movement immediately, stop the tractor engine and apply the tractor handbrake.

Check if you can safely leave the cab or your actual position without direct contact with electric wires. If not, stay in your position and call for help. If you can leave your position without touching the lines,

jump off the last step or support position and make sure that there is no contact between any part of your body, the tractor and the ground at the same time. Never touch the tractor or the implement.

ment afterwards until power to the lines has been shut off. When people approach the tractor or the implement, warn them not to touch the tractor or the implement but

to ask the electric power supply company to shut off the power to the lines.

Stopping the implement safely

Always interrupt the operation of the implement before you leave the tractor seat.

Make sure to secure the tractor by means of the hand brake and/or stop blocks if you need to stand between the tractor and the implement.

When, due to exceptional circumstances, you decide to keep the tractor engine running after you leave the tractor cab, you must:

- Bring the tractor engine to low idle speed.
- Disengage all drive systems.
- Shift the tractor transmission into neutral.
- Apply the parking brake.

When you park the implement there are some operational risks which may cause personal injury. Therefore, you must:

- Make sure that the ground is firm and even during parking.
- Make sure that tractor and implement cannot move.
- Always lower the implement to the ground.
- Stop the tractor engine and remove the ignition key.
- Use correct support or transport safety device when the implement is parked. Make sure that the parking stand is secured.

When you detach the implement from the tractor:

- Never allow anyone to stand between the tractor and the implement. An unintentional manoeuvre with the tractor may cause serious injury.
- Always detach the implement carefully and on a flat surface to prevent damage.
- Never go under an unsupported implement.

Maintenance

WARNING

Maintenance hazard!

Before you start servicing the machine, attach a DO NOT OPERATE warning tag to the machine in a visible area.

Failure to comply could result in death or serious injury.

- Maintenance must be performed with the machine turned off. If it is necessary to attach the implement to the tractor, the ignition key must be removed and kept segregated in order to avoid unexpected starting.
 - Follow the maintenance schedule with regard to the implement servicing intervals. Remember that the implement requires attention from time to time. Also remember that the maintenance will greatly extend the life of the implement.
 - Take the necessary precautions: not to spill any oil, fuel or grease.
To avoid oil and grease contact with your skin, wear protective gloves.
 - Service the implement on a firm level surface.
 - Stay clear from the area of the three point linkage during maintenance or checking operations.
 - Do not attempt to remove material from any part of the implement, clean, lubricate or carry out any adjustments on the implement while it is in use.
 - Keep hands, feet and/or garments away from parts which move.
 - Raised implement and/or loads can fall unexpectedly and crush persons underneath. Never enter or allow anyone to enter the area underneath raised implement during operation.
Unsupported hydraulic cylinders can lose pressure and drop the implement and cause a crushing hazard. Do not leave the implement in a raised position while parked or during service, unless securely blocked on wooden blocks.
 - Never work under a raised implement unless a support chain or other mechanical securing device secure the link arms of the tractor so that the implement cannot move to a lower position unintentionally.
 - Relieve the pressure, stop the engine and remove the ignition key, before you connect or disconnect fluid lines.
 - Before you adjust, clean, lubricate or you carry out repairs on the implement, stop the engine and remove the ignition key.
 - Any leakage of hydraulic oil or fuel under pressure may cause severe harm, so always use a shield, goggles and gloves when you trace oil or fuel leaks.
- Do not use your hand to check for leaks. Use a piece of cardboard or paper.
 - Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.
 - If hydraulic fluid or diesel penetrates the skin, seek medical care immediately.
 - Observe all recommendations that are mentioned in this manual such as service intervals, torques, lubricants, etcetera.
 - Always replace all parts that have damage or wear.
 - Never build flexible hose assemblies from hoses that were previously part of a hose assembly.
 - Never weld to the tubes.
 - Always use gloves when you work with parts on the implement as the parts can have sharp edges.
 - Transmission and hydraulic lines may become hot during operation. Be careful when you service such components. Allow surfaces to cool before you handle or disconnect hot components. Wear protective equipment when required.
 - Make sure that tires are correctly inflated. Do not exceed any recommended load or pressure. Over pressure could cause explosion hazard, with risk of death or serious injury. Follow the instructions in the manual for proper tire inflation
 - Tires are heavy. Always handle the tires with proper equipment. Failure to comply could cause death or serious injury.
 - Never weld on a wheel with a tire installed. Always remove the tire completely from the wheel before you weld.
 - Always have a qualified tire technician service the tires and wheels. If a tire has lost all pressure, take the tire and wheel to a tire shop or your dealer for service. Explosive separation of the tire can cause serious injury.
 - Do not weld to a wheel or rim until the tire is completely removed. Inflated tires can generate a gas mixture with the air that can be ignited by high temperatures from welding procedures performed on the wheel or rim. Removing the air or loosening the tire on the rim (breaking the bead) will not eliminate the hazard. This condition can exist whether tires are inflated or deflated. The tire must be completely removed from the wheel or rim prior to welding the wheel or rim.

Personal Protective Equipment (PPE)

Wear Personal Protective Equipment (PPE) such as protective clothing, eye protection, hearing protection, dust mask, hard hat, heavy gloves, work boots, and/or any other PPE that provides for the safety and protection of the individual that operates this equipment.



1

Safety requirements for fluid power systems and components - hydraulic systems

WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

Before you start the engine or pressurize the hydraulic system, install and tight correctly all the hydraulic couplings. Check that all hoses and fittings are undamaged. Replace immediately damaged components.

Only connect the hydraulic hoses to the tractor outlets if the tractor and the implement are pressure-free. If the hydraulic system of the tractor is activated, the hydraulic system may lead to uncontrolled movements which may cause secondary damage.

Make sure that no persons are near the implement when you start the implement, as there might be air in the hydraulic system which might lead to sudden movements.

When the tractor engine has stopped, activate the tractor hydraulic spool valves to make sure that there is no pressure in the hydraulic hoses.

To expel all the air from the oil in the hydraulic cylinders, test all the functions after you connect the hydraulic connections to the tractor, especially before you enter or drive on the public roads.

Implement stability

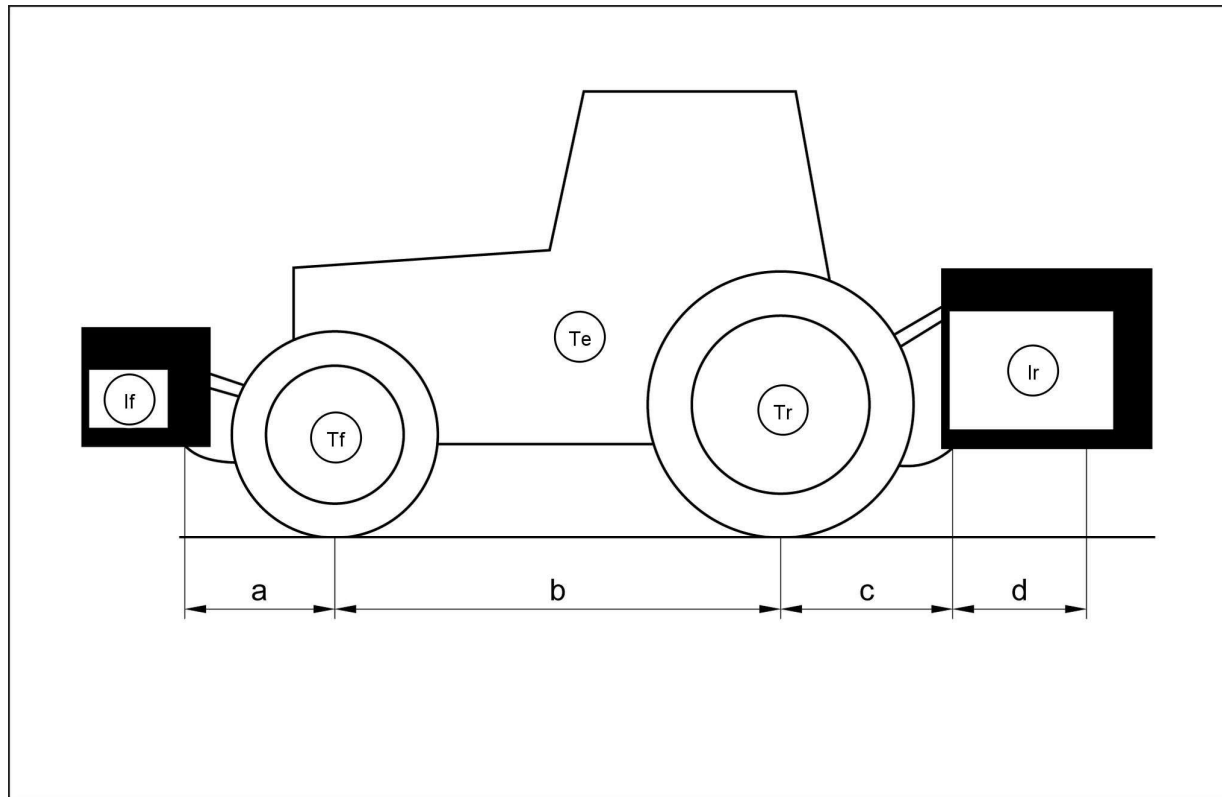
The combination of your tractor and implement can become unstable, due to the additional weight that the implement adds to the tractor.

In order to guarantee stable and safe transport, you must check if you need ballast weights for transport and field work.

You must also check and guarantee that you have at least **20%** from the tractor weight on the front axle.

For rear mounted implements and front-rear combinations, the formula is:

$$If_{min} = \frac{[I_r \times (c + d)] - (T_f \times b) + (0,2 \times T_e \times b)}{a + b}$$



Example of references to stability of the combination tractor – implement

List of signs

T_e [kg]	The tractor own weight.
T_f [kg]	Front axle load with empty tractor.
T_r [kg]	Rear axle load with empty tractor.
I_r [kg]	Total weight of the rear-mounted implement/rear ballast.
I_f [kg]	Total weight of the front-mounted implement/front ballast.
a [m]	Distance between the center of gravity of the front-mounted implement/front ballast and the middle of the front axle.
b [m]	The tractor wheel distance.
c [m]	Distance between the middle of the rear axle and the middle of the link arm balls.
d [m]	Distance between the middle of the link arm balls and the center of gravity of the rear mounted implement/rear ballast.

Ecology and the environment

Soil, air, and water quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances. Your KONGSKILDE - SEKO SRL dealer can also provide assistance.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- Do not open the air-conditioning system yourself. It contains gases that should not be released into the atmosphere. Your KONGSKILDE - SEKO SRL dealer or air-conditioning specialist has a special extractor for this purpose and can recharge the system properly.
- Repair any leaks or defects in the engine cooling system or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. KONGSKILDE - SEKO SRL strongly recommends that you return all used batteries to a KONGSKILDE - SEKO SRL dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.



1

Mandatory battery recycling

Since batteries contain sulfuric acid solution and heavy metals such as lead, before disposing of them, check your country regulations in terms of content and obligations related to the collection and recycling of used batteries.

Safety signs

The following safety signs are on your implement as a guide for your safety and for the safety of those who work with you.

Walk around the implement and note the content and location of all safety signs before you operate your implement. Read all the safety signs adhered to the implement and follow the instructions.

Keep all safety signs clean and legible. Clean safety signs with a soft cloth, water, and a gentle detergent.

NOTICE: Do not use solvent, gasoline, or other harsh chemicals. Solvents, gasoline, and other harsh chemicals may damage or remove the safety signs.

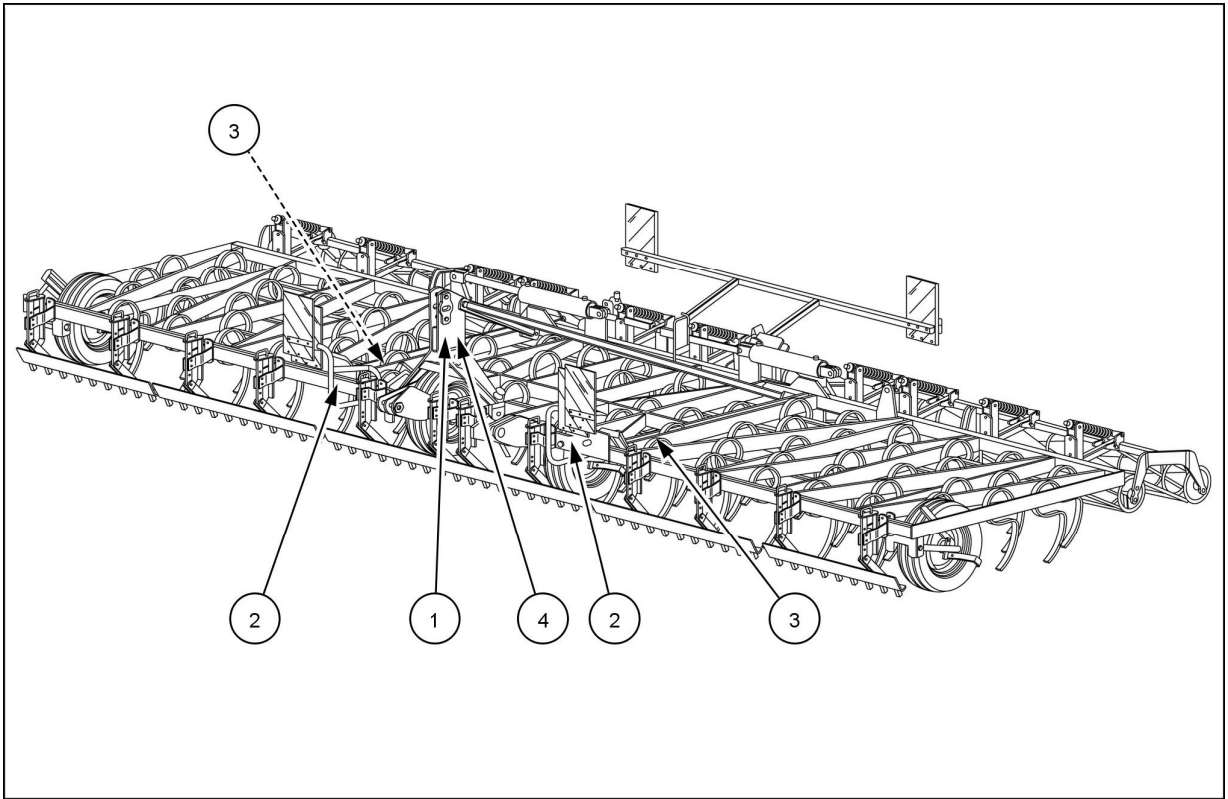
Replace all safety signs that are damaged, missing, painted over, or illegible. If a safety sign is on a part that you or your dealer replaces, make sure that you or your dealer install the safety sign on the new part. Contact your dealer for the replacement of the safety signs.

Safety signs that display the “Read operator’s manual” symbol direct you to the operator’s manual for further information regarding maintenance, adjustments, or procedures for particular areas of the implement. When a safety sign displays this symbol, consult the appropriate page of the operator’s manual.



Safety signs that display the “Read service manual” symbol direct you to the service manual. If you doubt your ability to perform service operations, contact your dealer.



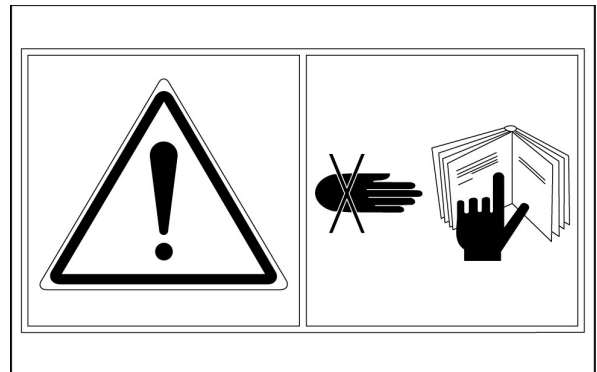


1

Safety sign (1)

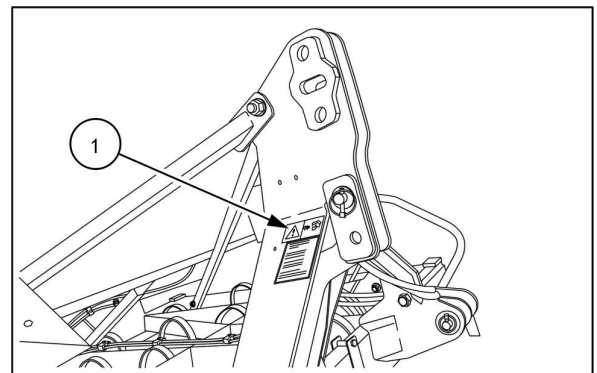
Read and observe the operating instructions. Before you operate the implement, read and observe both operating instructions and safety advice.

Part number: 71000187250



2

Located on the front cross beam.

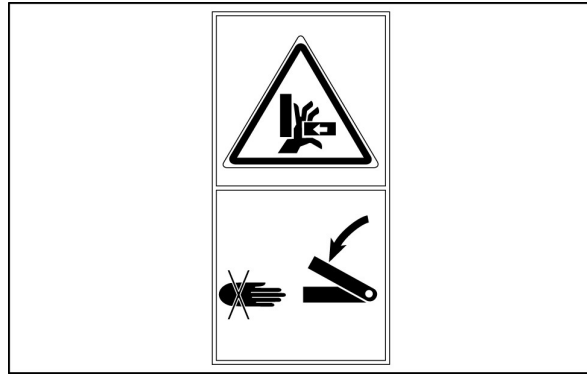


3

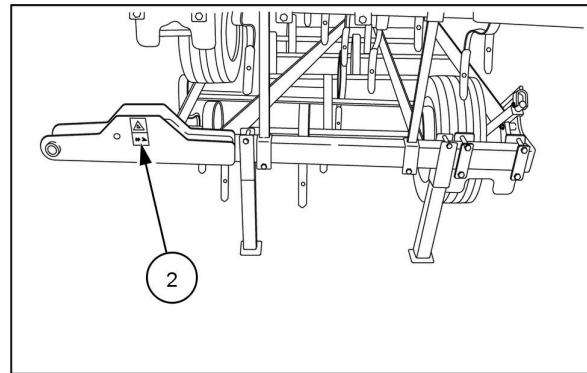
Safety sign (2)

Danger of crushing. Never reach into the danger zone, as long as there could be moving parts.

Part number: 71000629549



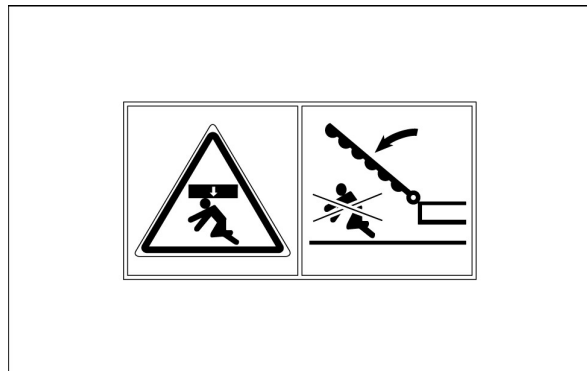
Located on the front frame.



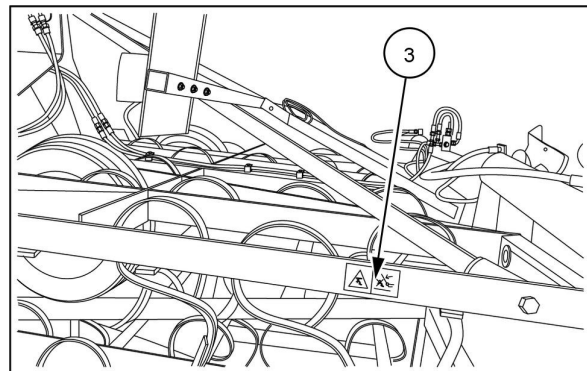
Safety sign (3)

Do not stand near the implement during lowering or leveling the implement.

Part number: 71000629546



Located on both side arms.



Safety sign (4)

Park in lowered position. Park the implement only in working position.

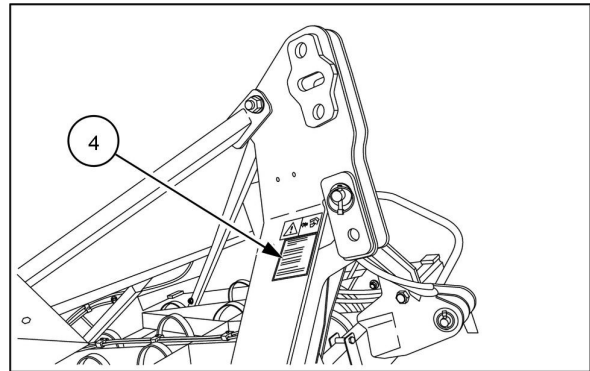
Part number: 71000646708

**MACHINE MUST BE
PARKED IN WORKING
POSITION**

**LA MACHINE DOIT
ETRE DEPOSEE EN
POSITION TRAVAIL**

**MASCHINE NUR IM
ABGESENKTEN
ZUSTAND PARKEN**

Located on the front cross beam.



3 - CONTROLS AND INSTRUMENTS

Information

Operating principles

For all information related to the description and the location of the controls to use your implement, see chapter “Controls and Instruments” in the operator’s manual of your vehicle.

4 - OPERATING INSTRUCTIONS

Commissioning the unit

Check before use

Before you operate the implement, perform the following operations:

- Read this operator's manual carefully, especially the chapter headed "Safety information".
- Check the correct assembly of the implement. Also check that the implement is undamaged.
- Check that no parts have been tied up inside the implement in connection with the delivery of the implement.
- Check the correct installation of the tines and rollers.
- Check the implement visually to find possible errors. Always replace all parts that are damaged or wear.
- Check the correct installation of the safety devices. Also check if the safety devices are intact.
- Remove all the tools from the implement.
- Check the correct connection and tightening of the hydraulic components.
- Check that the hydraulic hoses are long enough for the movements of the implement in relation to the tractor.
- Check the length of the hydraulic hoses when the implement is in working position. Check that the hydraulic hoses are not too tense.
- Check the proper tightness of all the nuts and bolts.
- Grease the implement before you start the operations. This is also necessary before you use the implement for the first time.
- Check the tire pressure.

NOTE: *If there is any doubt, stop the tractor and the implement immediately. If necessary, seek authorized assistance.*

Starting the unit

Connection to the tractor

WARNING

Crushing hazard!

Do not stand or place any body part between the implement and a moving tractor. Stop the tractor engine and set the parking brake before you attach cables and hoses.

Failure to comply could result in death or serious injury.

WARNING

Rear upset hazard!

Use the correct location on the tractor when attaching equipment. Always use the drawbar for trailed equipment. Always use the three-point hitch for mounted or semi-mounted equipment. Do not use the hitch as a drawbar.

Failure to comply could result in death or serious injury.

WARNING

Driving hazard!

Before operating the machine, slightly lower the three point hitch and visually inspect the connection to be sure the locking latches fully support the pick-up hitch.

Failure to comply could result in death or serious injury.

WARNING

Tip-over hazard!

Adding additional weight (buckets, attachments, etc.) to the machine can create a tipping hazard. Do not exceed the gross weight indicated by the machine specifications.

Failure to comply could result in death or serious injury.

It is possible to use category II or a category III three-point hitch to connect the seedbed cultivator to the tractor.

NOTE: *The category of the three-point hitch on the tractor and on the implement must match each other. If the three-point hitches do not correspond, adjust the three-point linkage on the tractor.*

Before you connect the implement to the tractor, check all linkage parts for cracks, missing components, loose bolts and nuts. Make sure that the implement will not disconnect by accident during fieldwork or transport.

The three-point hitch consists of the following parts:

- Upper hole **(1)** for correct top link angle and large tractors.
- Slotted/long hole **(2)** recommended for unlevel field.
- Category II inner latches **(3)** for lower linkages.
- Category III lower hole **(4)** for top link and outer latches **(5)** for lower linkages.

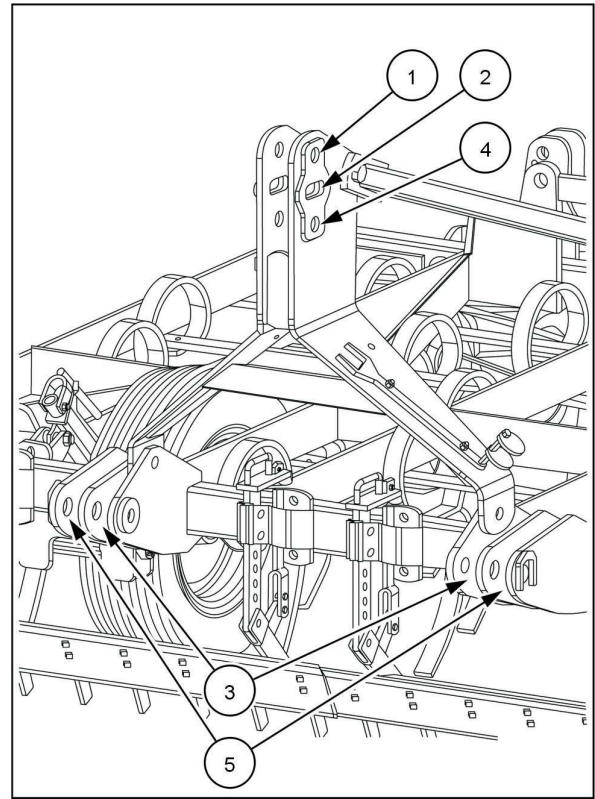
NOTE: Make sure that the seedbed cultivator is on a solid ground. Secure the seedbed cultivator against rolling.

To connect the implement to the tractor, proceed as follows:

1. Fit the ball bushes in correct category over the pins for the lower links and the head stock connections.
2. Lower the lower links of the tractor and drive backward until the lower link hooks are under the ball bushes.
3. Raise the lift until the lower link hooks are hooked in.
4. Install the top link.
5. Secure all connections against unintentional opening.
6. Connect the hydraulic hoses.

NOTE: Make sure the hydraulic fittings are clean. Make sure that there are no oil leaks in the hydraulic connections.

7. Connect the light equipment (optional).
8. Make sure that all functions work correctly.



1

Parking the unit

Disconnection and parking

⚠ WARNING

Overturning hazard!

Always try to park the machine on firm level ground. Avoid parking on slopes. Block the wheels in both directions.

Failure to comply could result in death or serious injury.

⚠ WARNING

Escaping fluid!

Do not connect or disconnect hydraulic quick coupler under pressurized conditions. Make sure all hydraulic pressure is removed from the system before connecting or disconnecting hydraulic quick coupler.

Failure to comply could result in death or serious injury.

Always park the implement on a firm and even ground to prevent damage.

Before you disconnect the implement from the three-point hitch, put the operating mechanism into a position that will prevent any accidental lifting or lowering.

To park the implement proceed as follows:

1. Place the seedbed cultivator on a firm and level ground.
2. Unfold the seedbed cultivator.
3. Release the pressure in the hydraulic system and from the hydraulic connections. Make sure that the air pressure and hydraulic oil pressure are at zero.
4. Uncouple the hydraulic hoses from the tractor.
5. Disconnect the light equipment (optional).
6. Remove the top link from the seedbed cultivator.
7. Release the lower linkage hooks.
8. Lower the lower links until they are free of the ball bushes.
9. Drive the tractor slowly forward to release the implement from the tractor.

5 - TRANSPORT OPERATIONS

Road transport

Transport position

To set the implement for road transport, proceed as follows:

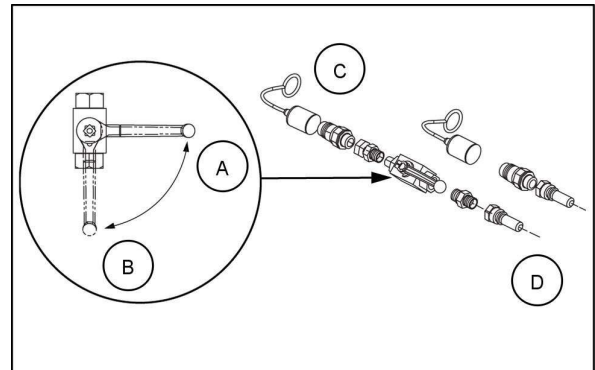
1. Lift and fold the implement. See Page 5-2 .
2. Make sure that the security hooks couple the frames in upright position.
3. To give a lower center of gravity, and thereby a more stable transport, lower the implement to a lower level, and keep sufficient distance to the road during transport.
4. Make sure that the implement is secure, that nothing can fall off, including big lumps of soil, during transport.

NOTE: Ensure sufficient locking at the side of the three-point linkage.

5. Check that any light kits and warning plates work properly and are clean.
6. Lock the control valves of the tractor.
7. Make sure that the valve which prevents from accidental unfolding is closed.

- (A) Valve closed
- (B) Valve open
- (C) To the tractor
- (D) To the implement

NOTICE: The security locking device prevents from accidental unfolding in case of a defect in the hydraulic hoses. However, the security locking device may not prevent unintentional unfolding or lowering if the control device is operated by mistake and the valve preventing from accidental unfolding is not closed.



1

Preparing for road transport

Folding and unfolding

DANGER

Crushing hazard!

Stay clear of the implement when the wings are folded or unfolded. Hydraulic or mechanical failure may cause rapid uncontrolled falling of the wings.

Failure to comply will result in death or serious injury.

CAUTION

Unexpected machine movement!

Make sure the implement is connected to a stable device when activating the hydraulics to fold and unfold the wings. Follow the correct operating procedure.

Failure to comply could result in minor or moderate injury.

Make sure that no one is in the implement working area when you fold or unfold the implement.

Lift the implement high enough off the ground to make sure that the implement does not hit the ground during folding or unfolding.

Mechanical wing lock system

To unfold the implement, proceed as follows:

1. Open the valve to prevent accidental unfolding.
2. To ensure clearance between the hooks and the pins, fold in the wings completely (4° inside), before you unfold the wings.
3. If the implement is equipped with a mechanical wing lock system, pull the two strings (1) attached to the wing locks to open the security hooks (2).

NOTE: If the tractor hydraulic is slightly leaking, there may be tension on the security hooks. In this case, operate the tractors hydraulic valve to fold the implement and then pull the strings.

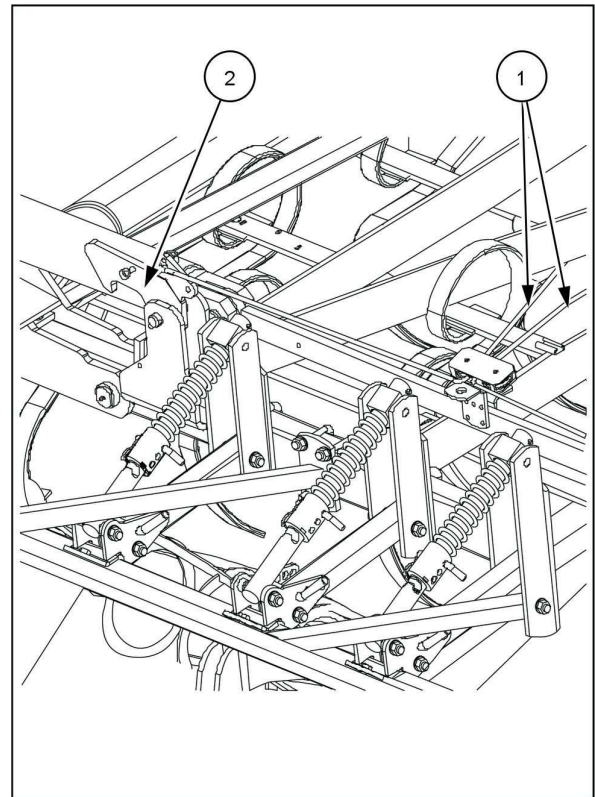
4. Use the hydraulic system to unfold the seedbed cultivator.

To fold the implement, proceed as follows:

1. Make sure the two strings (1) of the security hooks are loose, so the security hooks (2) are in the lower position ready to lock the wings when folded up.
2. Use the hydraulic system to fold the seedbed cultivator.

NOTICE: Make sure that the security hooks have locked the frames in the upright position.

NOTICE: Close the valve to prevent accidental unfolding.

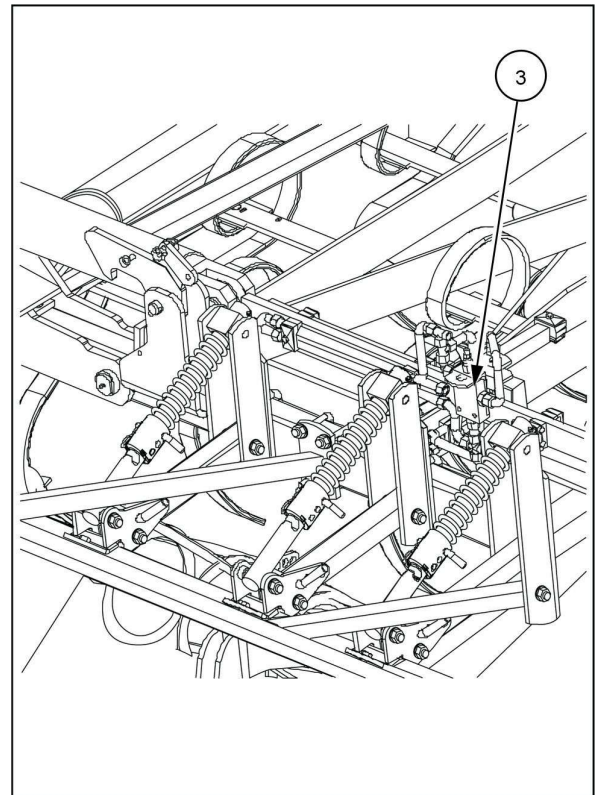


1

Automatic hydraulic wing lock system

The seedbed cultivator can be equipped with an automatic hydraulic wing lock system (3). Micro cylinders are used instead of a string and work together with the folding system for the side wings.

NOTICE: The machine (automatic and mechanical version) is equipped with a safety valve that prevents unintentional folding of the wings if the hooks remain closed. The valve set to 70 bar will not allow the machine to be unfolded and therefore will not damage the wings.



2

Shipping transport

Lifting the implement

⚠ DANGER

Heavy objects!

Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.

Failure to comply will result in death or serious injury.

⚠ WARNING

Crushing hazard!

Use the machine lifting points when you lift and/or move the machine with heavy handling equipment. Lift the machine only from the indicated lifting eye hookup points. Always use adequate lifting equipment.

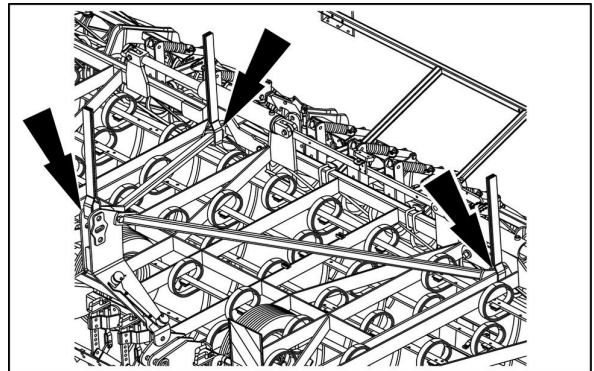
Failure to comply could result in death or serious injury.

NOTE: Make sure that there are no personnel under the implement at any time.

NOTE: Always lift the seedbed cultivator in unfolded position.

To lift the seedbed cultivator (with or without rear rollers connected) proceed as follows:

1. Fasten one connection in the pin for the top link connection.
2. Fasten two connections to the rear connection points (side flat bars on main frame).



1

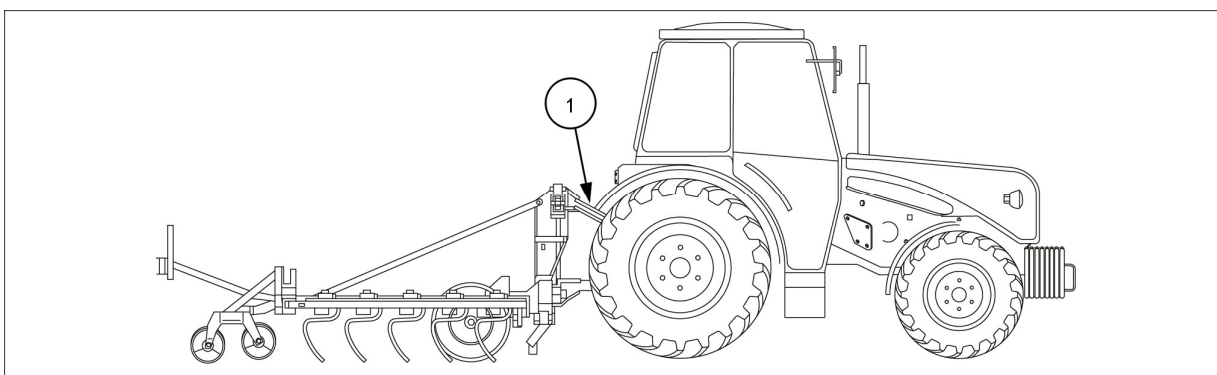
6 - WORKING OPERATIONS

Adjustments

Working adjustment

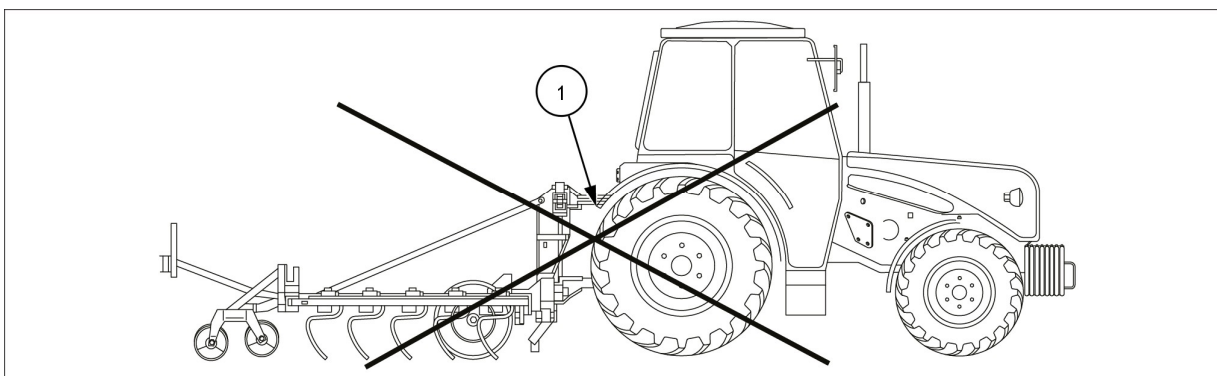
The seedbed cultivator frame must stay horizontal during work to make both the front and the rear row of tines work at the same depth. Use the tractor top link **(1)** to adjust this tines depth. A short top link raises the rear row of tines whereas a lengthened top link lowers the rear row of tines.

When the cultivator works in the field, the top link **(1)** must be lower at the tractor end than at the head stock of the cultivator.



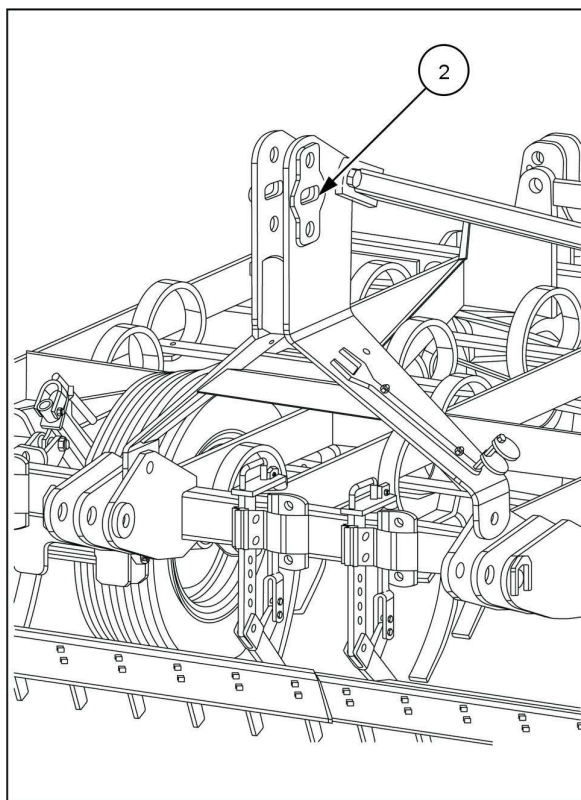
Correct adjustment of the top link

The top link **(1)** must never be horizontal or parallel to the lower linkages, as the cultivator will run unsteadily and make the steering of the tractor difficult.



Wrong adjustment of the top link

When you use the top link in the middle slotted/long hole **(2)** (for uneven fields), the top link pin must have contact to the front side of the headstock, to prevent the back-end of the cultivator dropping down.



3

Tines

The seedbed cultivator can be equipped with four different types of tines. The table below shows the recommended settings and use of each tine.

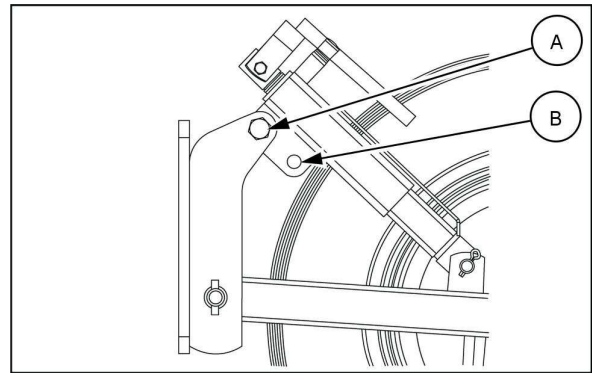
Type of tine	Working depth	Working speed	Tine distance	Conditions
S-tine (32x10.5 mm)	4 – 10 cm (1.6 – 3.9 in)	8 – 12 km/h (5 – 7.5 mph)	10 cm (3.9 in)	Seedbed
SQ-tine (32x12.4 mm)	4 – 10 cm (1.6 – 3.9 in)	8 – 12 km/h (5 – 7.5 mph)	8 cm (3.1 in)	Seedbed
SS-tine (45x11 mm)	4 – 12 cm (1.6 – 4.7 in)	8 – 12 km/h (5 – 7.5 mph)	10 cm (3.9 in)	Seedbed
VTM-tine (*) (50x10.8 mm)	4 – 12 cm (1.6 – 4.7 in)	8 – 12 km/h (5 – 7.5 mph)	15 cm (5.9 in)	Seedbed with some residues

NOTE: (*) As shares for VTM, 6.35 cm (2.5 in) goose foot and 10.16 cm (4 in) sweep can be used for shallow tillage. Always take into account local conditions such as soil type, weather conditions, stones, amount of residues when you set the seedbed cultivator.

Adjustment of the working depth

To adjust the working depth, proceed as follows:

1. Lift the seedbed cultivator.
2. Set the working depth by means of the wheel spindles on each of the four rubber wheels. An indicator shows the two position **(A)** or **(B)** of the spindle:
 - Position **(A)** for VTM tines.
 - Position **(B)** for S, SQ and SS tines.
3. Set the depth wheels on the center section deeper than the depth wheels on the wings, as they sometimes are running in the tracks from the tractor. Depth wheels on the center section must be set 1 scale-point deeper than the wings.



NOTICE: After the adjustment, position the handle in the storage clip, to prevent the handles from turning during work.

Adjustment of the level board

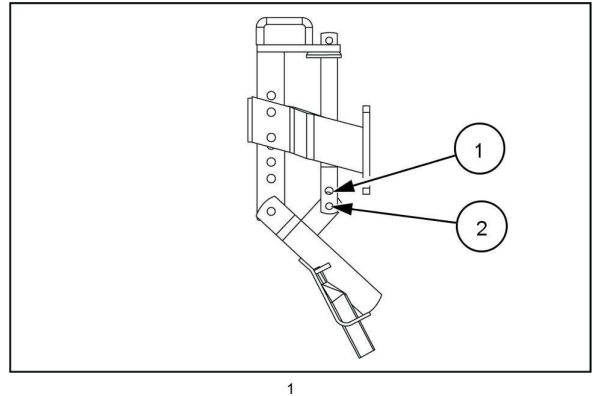
Angle

The level board has in general two different ways of working:

- Crushing mode (upper hole **(1)**). The board is backward angled and clods are crushed under the board.
- Levelling mode (lower hole **(2)**). The board is more vertical positioned and has a better ability to level out the soil surface.

To change from crushing to levelling mode:

1. Remove the bolts.
2. Change the angle of the level board to match the upper hole **(1)** or lower hole **(2)**.
3. Insert the bolts and tighten again.



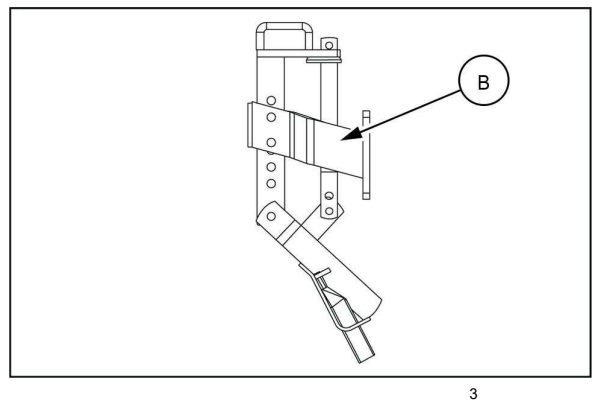
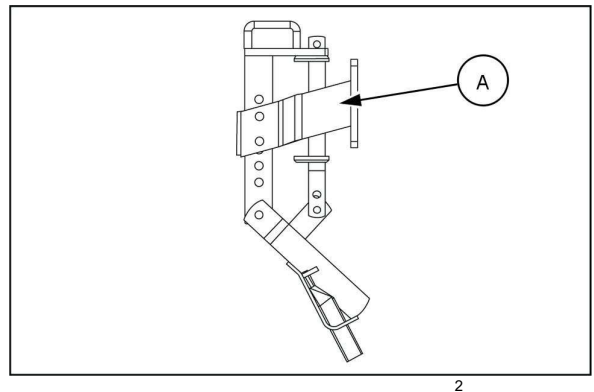
Height

Place the bracket for the level board according to the type of tine used:

- Position **(A)** for VTM tines.
- Position **(B)** for S, SQ and SS tines.

The level board sections are hung up in two brackets. From here the height can be adjusted.

1. Pull out the ring clip of both pins.
2. Remove the pins.
3. Adjust to the desired height.
4. Insert the pins and the ring clips again.

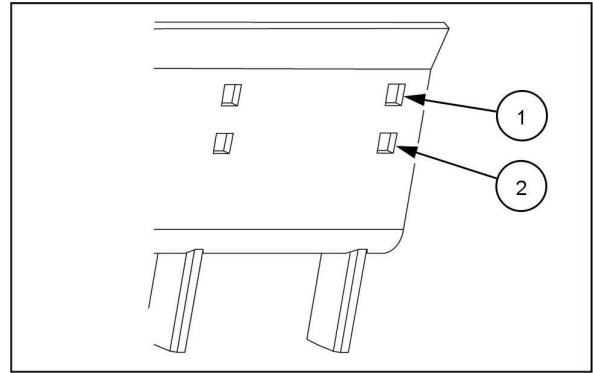


Adjustment of the spikes on the level board

NOTE: The level board is made for crushing and levelling, not for dozing big amounts of soil.

The spikes on the level board can be mounted in two height positions. From the factory the spikes are mounted in the upper hole **(1)**. When the spikes get worn, move the worn spikes to the lower hole **(2)**.

NOTE: Use only original KONGSKILDE - SEKO SRL spikes as spare parts.



4

Front flex board position

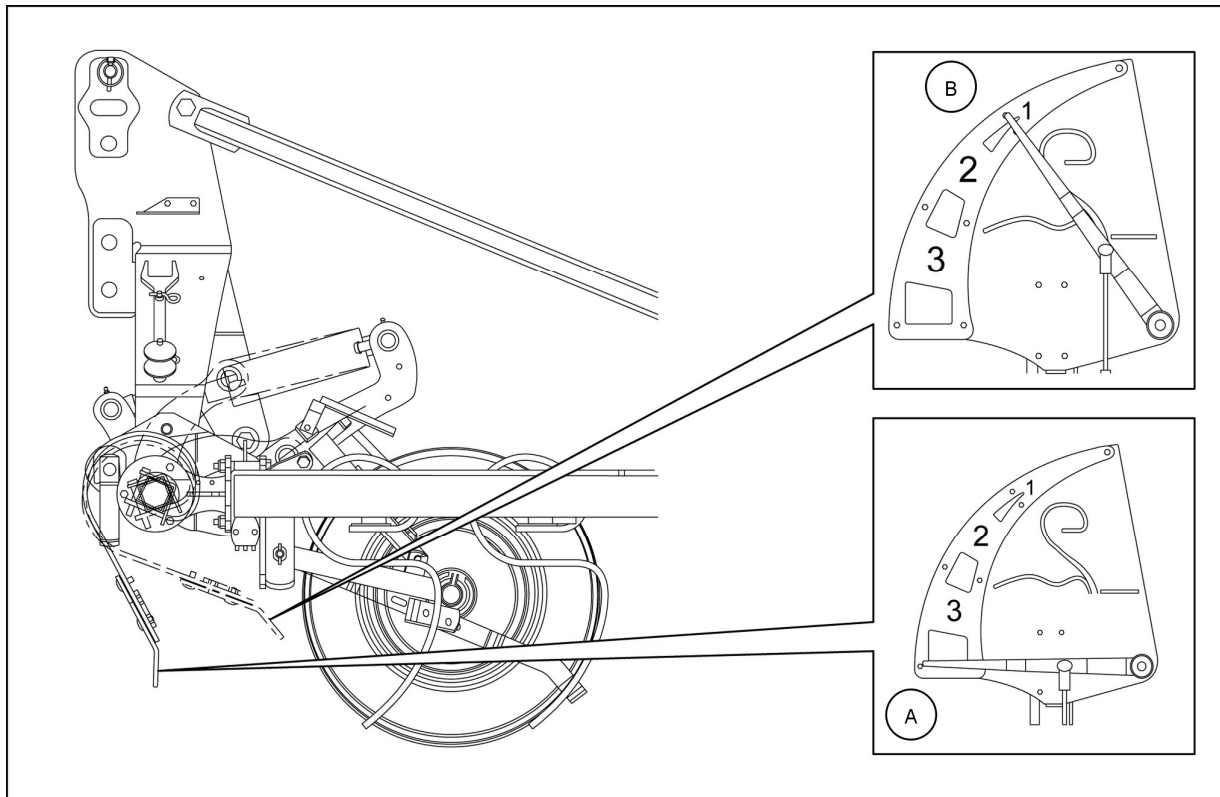
Front flex board position

The purpose of the front Flex board is to pre-level the surface of the soil.

The positioning is controlled from the operator booth, using a blue double-action hydraulic line.

The unit is equipped with an indication of the front flex board position:

- Position **(A)**: the beam is maximally extended.
- Position **(B)**: the beam is out of work.



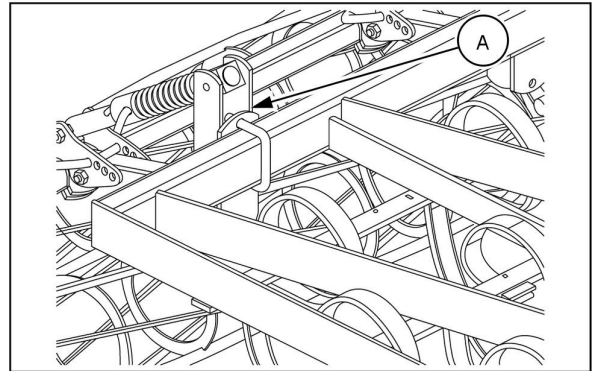
Adjustment of the rear rollers

Connection to the seedbed cultivator

The rear rollers are attached to the cultivator by an arm, which follows the soil during work and ensures optimal re-consolidation.

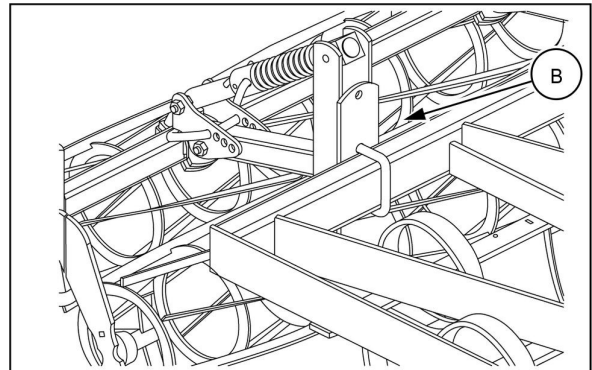
Connect the rear harrow attachment to the cultivator. There are two possible connections, which depend on the type of tines used on the cultivator.

- Position **(A)** for VTM tines.



1

- Position **(B)** for S, SQ and SS tines.



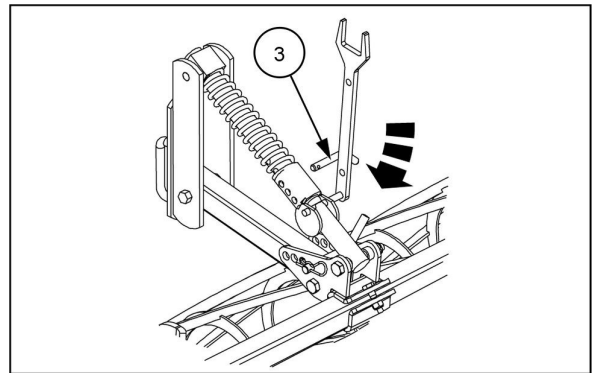
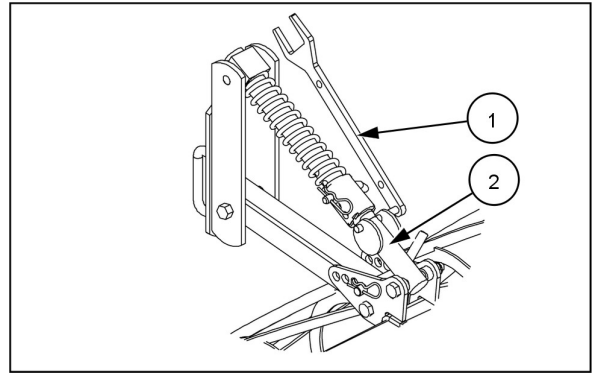
2

Adjustment of the pressure on the rollers

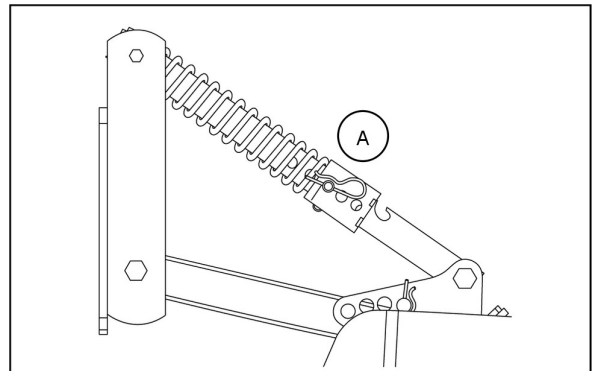
To adjust the pressure on either single or double rollers, use the tool for the spring adjustment. There are six different positions.

To adjust the pressure on the roller, proceed as follows:

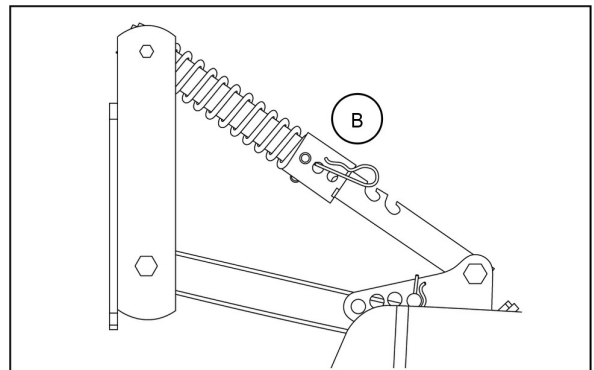
1. Place the eccentric tool **(1)** in the slot of the rod **(2)**.
2. Turn the tool slightly until the pin **(3)** can be removed.
3. Adjust with the tool to the desired pressure and insert the pin **(3)** again.
4. Repeat this for all arms.



Place the pin **(3)** in position **(A)** to set the minimum pressure on the rollers.



Place the pin **(3)** in position **(B)** to set the maximum pressure on the rollers.

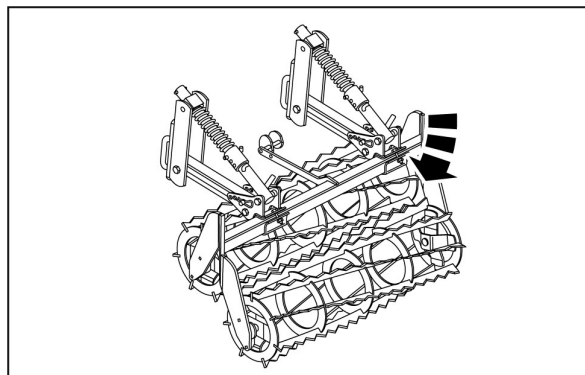


Adjustment of the angle on the double rollers

Adjust the attack angle of the double rollers according to the soil conditions. Set the front roller higher than the rear roller (approximately **10 – 20 mm (0.4 – 0.8 in)**), to prevent the rear roller from digging too deep into the soil.

To adjust the angle, proceed as follows:

1. Pull out the ring clip of both pins.
2. Lift the front roller (use the proper special tool).
3. Remove the pins.
4. Insert the pins and the ring clips again.

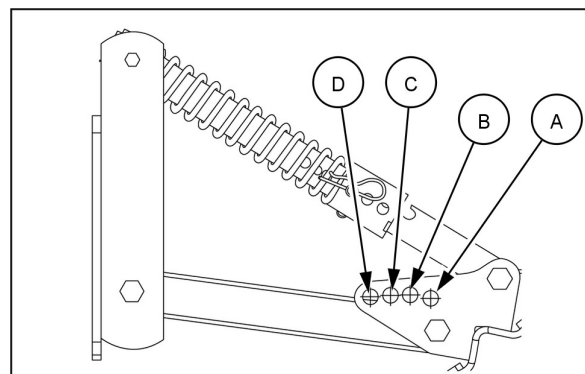


7

Recommendation:

- Position **(A)**: for **4 – 6 cm (1.6 – 2.4 in)** working depth.
- Position **(B)**: for **6 – 8 cm (2.4 – 3.1 in)** working depth.
- Position **(C)**: for **8 – 10 cm (3.1 – 3.9 in)** working depth.
- Position **(D)**: for **10 – 12 cm (3.9 – 4.7 in)** working depth.

NOTE: The front roller must work higher than rear roller.



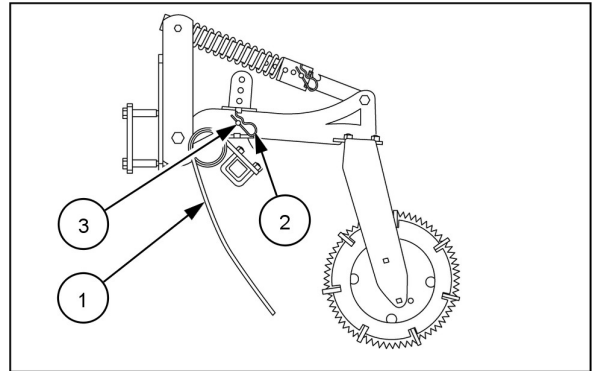
8

Adjustment of the maximum flow tine

Single roller

To adjust the height of the tine (1) proceed as follows:

1. Pull out the hairpin cotter (2) of the pin (3).
2. Remove the pin (3).
3. Adjust the tine to the desired height.
4. Insert the pin (3) and the hairpin cotter (2).
5. Repeat the procedure for all arms.

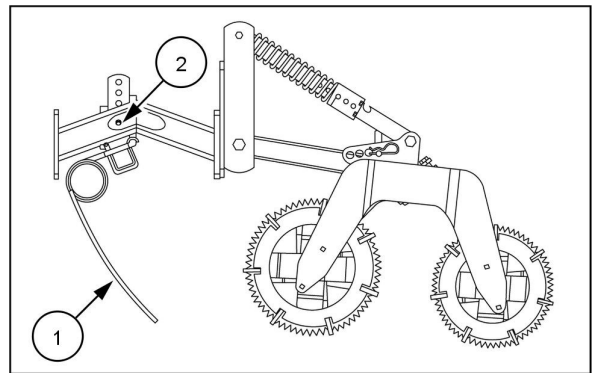


1

Double rollers

To adjust the height of the tine (1) proceed as follows:

1. Pull out the hairpin cotter of the pin (2).
2. Remove the pin (2).
3. Adjust the tine to the desired height.
4. Insert the pin (2) and the hairpin cotter.
5. Repeat the procedure for all arms.



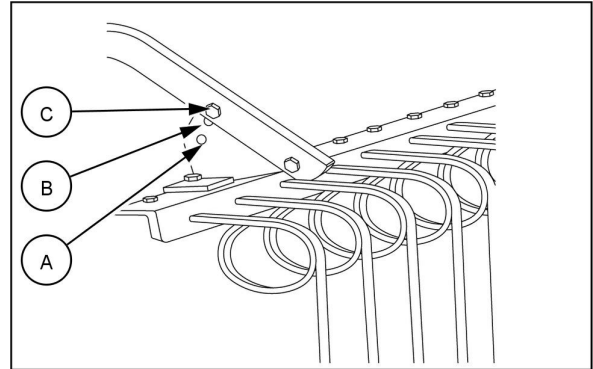
2

Adjustment of the long finger rear harrow

The long finger rear harrow can be fitted on the rear of the seedbed cultivator to eliminate tracks from the last row of tines, and to level out the surface in general.

The long finger tines can be set in three different angles to the ground.

Position	Function
(A)	Steep angle - maximum leveling
(B)	Middle angle - levels out and allows clods and residues to pass
(C)	Low angle - maximum passage of clods and residues



7 - MAINTENANCE

General information

General

⚠ WARNING

Improper operation or service of this machine can result in an accident.

If you do not understand a maintenance procedure, or doubt your ability to perform a maintenance procedure correctly, see your authorized dealer.

Failure to comply could result in death or serious injury.

⚠ WARNING

Avoid injury! Always do the following before lubricating, maintaining, or servicing the machine.

1. Disengage all drives.
2. Engage parking brake.
3. Lower all attachments to the ground, or raise and engage all safety locks.
4. Shut off engine.
5. Remove key from key switch.
6. Switch off battery key, if installed.
7. Wait for all machine movement to stop.

Failure to comply could result in death or serious injury.

⚠ WARNING

Knife hazard!

Use care handling sharp components. Always wear appropriate Personal Protective Equipment (PPE), including heavy gloves.

Failure to comply could result in death or serious injury.

NOTICE: Be sure that all the service operations in this chapter are carried out punctually at the intervals given, in order to ensure optimum performance levels and maximum safety when using the implement.

Adequate lubrication and maintenance on a regular schedule is vital to maintain your implement. To ensure long service and efficient operation, follow the lubrication and maintenance schedules outlined in this operator's manual. The use of proper oils, grease, and filters, as well as keeping the systems clean, will also extend the implement and components life.

NOTICE: Failure to complete the required maintenance at the recommended intervals can cause unnecessary downtime.

Use the intervals listed in the maintenance chart as guidelines when you operate in normal conditions. Adjust the intervals when you operate in adverse environmental and working conditions. Shorten the intervals for sandy, dusty, and extremely hot operating conditions.

NOTICE: *While any company can perform necessary maintenance or repairs on your implement, KONGSKILDE - SEKO SRL strongly recommends that you use only authorized KONGSKILDE - SEKO SRL dealers and products that meet given specifications. Improperly or incorrectly performed maintenance and repair voids the equipment warranty and may affect service intervals.*

When you repair or maintain the implement it is especially important to ensure the correct personal safety. Therefore, always park the tractor (if mounted) and the implement safely.

NOTE: *Never work under a raised implement unless a support chain or other mechanical securing device secure the link arms of the tractor so that the implement cannot move to a lower position unintentionally.*

Only use original KONGSKILDE - SEKO SRL spare parts to avoid un-intentional risks and damages.

Install the used spare parts correctly and torque all the bolts and nuts to the correct tightening torque.

NOTICE: *Worn and damaged parts must be changed at the earliest possible moment in order to secure correct and safe function.*

Hydraulic system

When you replace parts of the hydraulic system, always make sure that the implement rests on the ground.

Remember to relieve the oil pressure before you work with the hydraulic system.

Hydraulic hoses must be checked before each use, and minimum once a year. If necessary, replace the hydraulic hoses. All hoses are marked with date of production. The working life of hydraulic hoses should not exceed 6 years, including maximum 2 years of storage.

When you replace hoses, always use hoses which comply with the requirements stated by the manufacturer.

Before every use of the stubble cultivator, check the hydraulic pipes, hoses and connections. If there is any sign of breakage emerging, make sure to change the parts in question.

To perform the maintenance and the repair work on the foldable frame parts, lower the foldable frame parts and release the pressure of the hydraulic system (only for hydraulic foldable version).

NOTICE: *When the hydraulic system fails during folding or unfolding, then the wings may immediately unfold (for foldable version).*

Torque

Minimum hardware tightening torques (in N m or lb in /lb ft) for normal assembly applications unless otherwise stated

The minimum hardware tightening torque on drawings, in specifications, etcetera have priority.

In the following tables, torque specifications are shown following the standard **ENS7001**, applicable for material class 8.8 and material class 10.9.

Hex head bolts

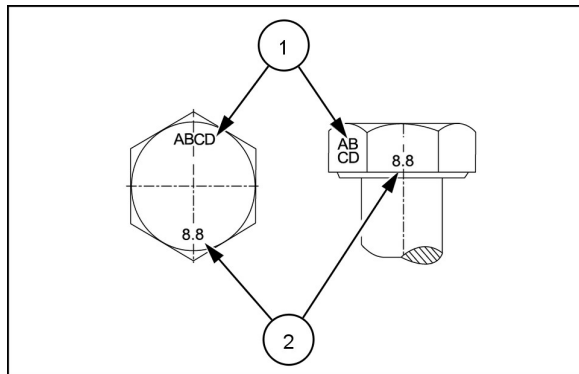
Nominal Size	Class 8.8 in N m (lb in or lb ft)			Class 10.9 in N m (lb in or lb ft)		
	Plated nut	Lock nut	Hardened nut/Oiled plated nut	Plated nut	Lock nut	Hardened nut/Oiled plated nut
M3	1.3 N·m (11.5 lb in)	0.7 N·m (6.2 lb in)	1.2 N·m (10.6 lb in)	1.8 N·m (15.9 lb in)	0.9 N·m (8.0 lb in)	1.6 N·m (14.2 lb in)
M4	2.9 N·m (25.7 lb in)	1.6 N·m (14.2 lb in)	2.6 N·m (23.0 lb in)	4.2 N·m (37.2 lb in)	2.3 N·m (20.4 lb in)	3.7 N·m (32.7 lb in)
M5	5.9 N·m (52.2 lb in)	3.2 N·m (28.3 lb in)	5.3 N·m (46.9 lb in)	8.5 N·m (75.2 lb in)	4.6 N·m (40.7 lb in)	7.6 N·m (67.3 lb in)
M6	10.1 N·m (89.4 lb in)	5.5 N·m (48.7 lb in)	9.1 N·m (80.5 lb in)	14.5 N·m (10.7 lb ft)	7.9 N·m (69.9 lb in)	13 N·m (9.6 lb ft)
M8	24.5 N·m (18.1 lb ft)	13.5 N·m (10.0 lb ft)	22 N·m (16.2 lb ft)	35.1 N·m (25.9 lb ft)	19.3 N·m (14.2 lb ft)	31.5 N·m (23.2 lb ft)
M10	48.7 N·m (35.9 lb ft)	26.8 N·m (19.8 lb ft)	43.8 N·m (32.3 lb ft)	69.5 N·m (51.3 lb ft)	38.2 N·m (28.2 lb ft)	62.5 N·m (46.1 lb ft)
M12	85 N·m (62.7 lb ft)	46.7 N·m (34.4 lb ft)	76.5 N·m (56.4 lb ft)	121 N·m (89.2 lb ft)	66.5 N·m (49.0 lb ft)	108.9 N·m (80.3 lb ft)
M14	135 N·m (99.6 lb ft)	74.2 N·m (54.7 lb ft)	121.5 N·m (89.6 lb ft)	193 N·m (142.3 lb ft)	106.1 N·m (78.3 lb ft)	173.7 N·m (128.1 lb ft)
M16	210 N·m (154.9 lb ft)	115.5 N·m (85.2 lb ft)	189 N·m (139.4 lb ft)	301 N·m (222 lb ft)	165.5 N·m (122.1 lb ft)	270.9 N·m (199.8 lb ft)
M18	299 N·m (220.5 lb ft)	164.4 N·m (121.3 lb ft)	269.1 N·m (198.5 lb ft)	414 N·m (305.4 lb ft)	227.7 N·m (167.9 lb ft)	372.6 N·m (274.8 lb ft)
M20	425 N·m (313.5 lb ft)	233.72 N·m (172.4 lb ft)	382.5 N·m (282.1 lb ft)	587 N·m (432.9 lb ft)	322.8 N·m (238.1 lb ft)	528.3 N·m (389.7 lb ft)
M22	579 N·m (427 lb ft)	318.4 N·m (234.8 lb ft)	521.1 N·m (384.3 lb ft)	801 N·m (590.8 lb ft)	440.5 N·m (324.9 lb ft)	720.9 N·m (531.7 lb ft)
M24	735 N·m (542.1 lb ft)	404.2 N·m (298.1 lb ft)	661.5 N·m (487.9 lb ft)	1016 N·m (749.4 lb ft)	558.8 N·m (412.1 lb ft)	914.4 N·m (674.4 lb ft)
M27	1073 N·m (791.4 lb ft)	590.1 N·m (435.2 lb ft)	967.5 N·m (713.6 lb ft)	1486 N·m (1096 lb ft)	817.3 N·m (602.8 lb ft)	1337 N·m (986.1 lb ft)
M30	1461 N·m (1077.6 lb ft)	803.5 N·m (592.6 lb ft)	1315 N·m (969.9 lb ft)	2020 N·m (1489.9 lb ft)	1111 N·m (819.4 lb ft)	1818 N·m (1340.9 lb ft)

Flange head bolt/Flange nut

Nominal Size	Class 10.9 in N·m (lb ft)
M3	2.0 N·m (1.5 lb ft)
M4	4.6 N·m (3.4 lb ft)
M5	9.4 N·m (6.9 lb ft)
M6	15.9 N·m (11.7 lb ft)
M8	38.7 N·m (28.5 lb ft)
M10	76.5 N·m (56.4 lb ft)
M12	134 N·m (98 lb ft)
M14	213 N·m (157 lb ft)
M16	331 N·m (244 lb ft)
M18	455 N·m (336 lb ft)
M20	645 N·m (476 lb ft)
M22	881 N·m (650 lb ft)
M24	1118 N·m (824 lb ft)
M27	1635 N·m (1206 lb ft)
M30	2222 N·m (1639 lb ft)
M36	3880 N·m (2862 lb ft)

Identification markings

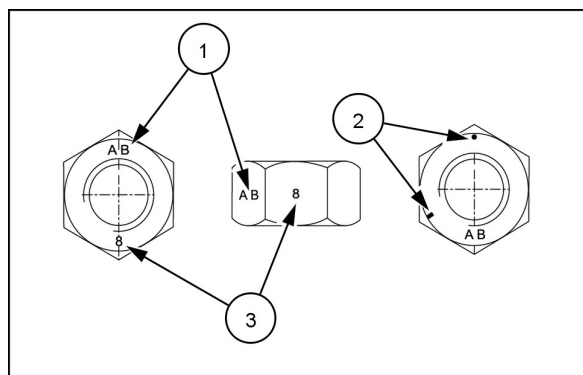
Metric hex head, flange hex head and carriage bolts,
Classes (CL) 5.6 and upward



1
Metric bolt identification markings

1. Manufacturer's identification
2. Property class

Metric hex nuts and locknuts, Classes (CL) 05 and upward



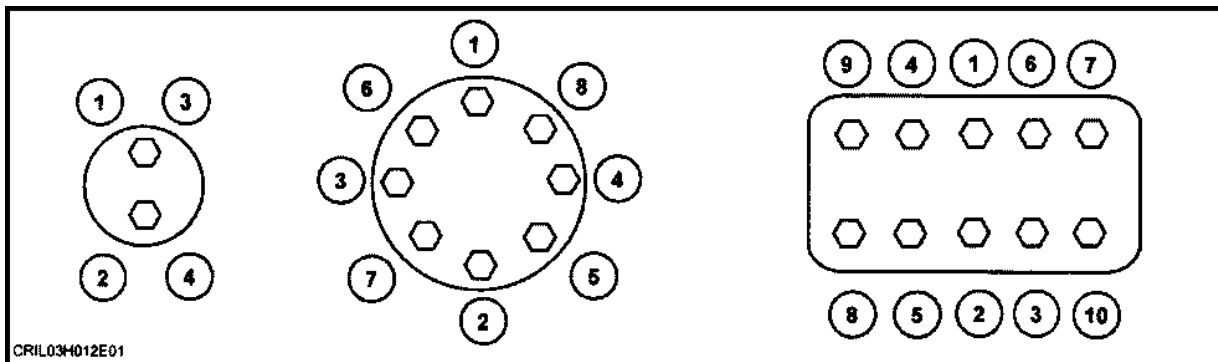
2

Metric hex nut identification markings

- (1) – Manufacturer's identification
- (3) – Property class
- (2) – Clockwise type markings indicate property class and may include manufacturer identification (if applied), Example: property marks **240°** apart (shown) at the eight o'clock position indicate a Class 8 property, and marks **300°** apart at the ten o'clock position indicate a Class 10 property.

Torque tightening sequence

NOTICE: Shown below is the suggested initial torque tightening sequences for general applications, tighten in sequence from item 1 through to the last item of the hardware.



CRIL03H012E01

3

Grease fittings and intervals

Before greasing the implement always wipe any dirt from the grease fittings.

All points, except those with special notations, should be lubricated until the grease is forced out around the bearings and then the excess grease should be wiped off.

Grease specification

See Page **7-8** for the correct grease specification.

Pressure washing

WARNING

Flying debris!

Always wear protective clothing and safety glasses or a face shield when using a steam cleaner or power washer.

Failure to comply could result in death or serious injury.

NOTE: Legislation in certain countries and good practice requires special treatment of waste water through sedimentation and oil separation and controlled removal of residues.

Before you use pressure washing, clean the implement with compressed air.

Avoid pressure washing at ambient temperatures below **10 °C (50 °F)** or when the implement is wet. Place the implement in a heated workshop or dry barn for at least **24 h**. Clean the implement only when fully dry.

Be careful when you clean the implement with a high pressure washing. Avoid to direct water jets on electric equipment, bearings, seals, gearboxes, etcetera.

Grease all grease fittings carefully after you clean the implement to press possible water outside bearings.

When you use a high pressure washer:

- Keep a minimum distance of **30 cm (12 in)** between the spray gun and the surface to be cleaned.
- Spray under an angle of minimum **25°** (do not spray straight at the implement).
- Maximum water temperature: **60 °C (140 °F)**.
- Maximum water pressure: **60 bar (870 psi)**.
- Do not use chemicals.

NOTICE: On the cylinders, do NOT direct the stream of a high pressure washer at the wiper seal. Water could come through the rod guide and create corrosion. This corrosion could generate pollution and seizing of the cylinder rod and the rod guide.

Fluids, lubricants, and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	TUTELA MULTI-PURPOSE GR-9 GREASE or TUTELA 75 MD GREASE	NLGI 2 M1C 137-A or M1C 75-B

Maintenance planning

Overview

Grease		Replace	
Check			
Maintenance action			Page no.
After the first 10 hours			
Nuts and bolts	x		7-9
Every 20 hours			
20 hours grease fittings		x	7-10
Every 100 hours			
Nuts and bolts	x		7-11
Every six years			
Hydraulic hoses		x	7-12
As required			
Wheels and tires	x		7-13

After the first 10 hours

Nuts and bolts

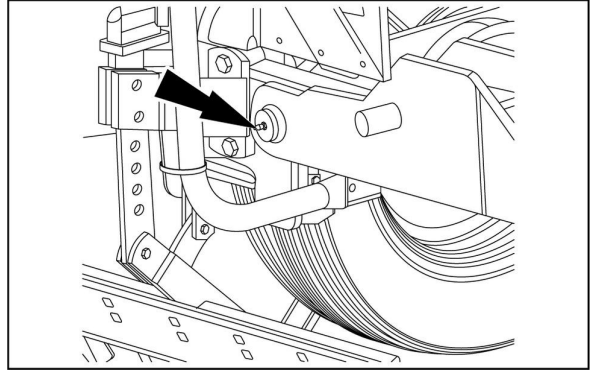
Check all bolts and nuts after the first **10 h** of work.
 Retighten the bolts and the nuts if necessary.

Every 20 hours

20 hours grease fittings

Front

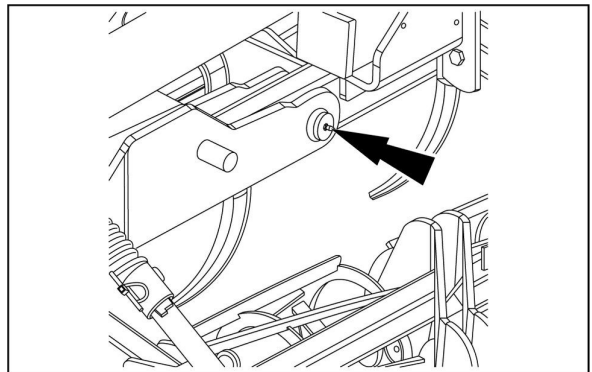
1. Wing hinge. One grease fittings on each side.



1

Rear

2. Wing hinge. One grease fittings on each side.



2

Every 100 hours

Nuts and bolts

Check all bolts and nuts every **100 h** of work. Retighten the bolts and the nuts if necessary.

Every six years

Hydraulic hoses

WARNING

Escaping fluid!

Do not disconnect hydraulic quick coupler under pressurized conditions. Make sure all hydraulic pressure is removed from the system before disconnecting hydraulic quick coupler. Failure to comply could result in death or serious injury.

WARNING

Escaping fluid!

Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.

Failure to comply could result in death or serious injury.

Hydraulic hoses are important safety elements in modern machinery. However, over the years, hose characteristics alter under pressure, thermal load and UV light. Therefore, most hoses now have a production date printed on the metal clamp bushing which allows to determine the age.

Legislation in certain countries and good practice require that hydraulic hoses are replaced when they become 6 years old.

As required

Wheels and tires

Check the wheels and tires regularly during the season.

1. Check the tire pressure regularly. If necessary, inflate the tires to the recommended pressure (see Page **9-3**). Make sure that both tires are set to the same tire pressure.

NOTICE: *Inflate the tires correctly. If the pressure is too high the tires may crack. If the pressure is too low the tires may be damaged due to deformation of the tire wall.*

2. Check the torque of the wheel hardware regularly. Make sure to torque the wheel hardware any time that you remove and install a wheel.

NOTICE: *Do not install a tire of a different size. Use only original KONGSKILDE - SEKO SRL spare parts.*

Storage

End of season service

When the season is over, prepare the implement for the storage immediately.

To prepare the implement for winter storage, proceed as follows:

1. Clean the implement thoroughly. Dust and dirt absorb moisture and moisture increases the formation of rust.
2. Store the implement in a dry place, protected against wind and weather in the best possible way.
3. Grease all grease fittings after you clean the implement, according to the "Maintenance chart".
4. Check the implement for damaged parts, loose screw-joints, leakage, wear and other defects carefully before the storage. If there is any damage, it may be forgotten during the storage and result in problems the following season. Note down the necessary parts you will need before the next season and order the spare parts.
5. The piston rod of the hydraulic cylinders may get rusty. Clean with brush and grease the components in order to protect them against wind and weather.
6. Dismount the hydraulics and electronic cables and wires, keep the ends dry.
7. Support the implement to relieve the weight from the tires. Leave tires inflated. Tire and rubber components life will be extended if protected from sunlight during storage.

NOTE: Periodic checks will help to keep your implement maintenance and repairs to a minimum and avoid costly breakdowns during the season. Therefore, it is good practice to have the implement inspected at the end of the season.

Implement long-term storage and/or disposal

When the implement reaches the end of its useful life, observe the following recommendations for disposal:

- See your KONGSKILDE - SEKO SRL dealer to make an agreement for your dealer to properly dispose of the implement, or
- Sell the implement to a company that specializes in the proper disposal of industrial machinery.

If you want to keep the implement on your premises (for spare parts or other reusable components, etc.) you must observe the following instructions:

1. Park the implement on hard and level ground. Bring all moveable components to the lowest position and/or safest position.
2. Store the implement with the axles on wooden blocks in order to keep the implement upright, as the tires will deflate over time.
3. Drain the oil from gearbox, and hydraulic systems into appropriate containers. Take the oil to your local waste recycling facility. Pay attention to local rules that may require you to store the different types of oils separately. Remove the filters (if available).

NOTE: *The implement is now ready for a long-term storage and/or for scrapping after the removal of reusable components.*

Long-term storage

The assigned storage life for the implement is minimum seven years, during this time the implement must be packed in a dry and clean place without condensation.

NOTE: *All the requirements for the storage of the implement must be met.*

Scrapping

When you scrap the vehicle, you must keep materials apart. Separate the following:

- Plastics
- Rubber hoses
- Belts
- Electric and electronic components
- Tires
- Wiring harnesses
- Sheet metal
- Castings
- Weld assemblies
- Aluminium
- Any other additional category

NOTE: *See your local waste recycling facility for specific rules on how to deliver the scrapped materials.*

When you dismount mechanical systems, make sure that there is no risk of residual energy (such as compressed springs in belt variators). If you do not have the proper tools or instructions to disassemble a system or component, contact your KONGSKILDE - SEKO SRL dealer to perform this service.

NOTE: *Make sure that the implement maintains stability during the dismantling process.*

Ordering parts and / or accessories

When you prepare the implement for storage, check thoroughly for any parts that may have become worn and need replacing.

Order and install the spare parts and/or accessories at once before the next season.

When you order spare parts, always make sure to give your KONGSKILDE - SEKO SRL dealer the model number and the Product Identification Number (PIN) of your implement. See "Product identification" in Chapter 1 of this operator's manual.

Insist on genuine KONGSKILDE - SEKO SRL "quality" spare parts as they will give the best performance and are covered by our warranty.

For best performance, have your implement serviced by an authorized KONGSKILDE - SEKO SRL dealer.

8 - TROUBLESHOOTING

Fault code resolution

General

This chapter describes the easy diagnostic methods for generic problems and the related remedies for them. If you cannot find the cause of a problem or solve a problem, consult the KONGSKILDE - SEKO SRL dealer.

Troubleshooting

Problem	Possible Cause	Correction
Too shallow / deep work.	Incorrect adjustment of the working section.	Turn the depth wheel crank to set the desired working depth.
Uneven soil cultivation.	Worn elements in the working sections.	Replace worn elements in working sections.
	Incorrect tine positions in the working section.	Set the tines correctly in the working sections.
	The implement is not leveled.	Level the implement by the number of plates that are mounted on the cylinder piston.
The cultivation roller does not move.	The bearing is damaged.	Replace the bearing.
Too much soil accumulates in front of the flex board or the soil is not properly cultivated.	Incorrect front flex board position.	Use the hydraulic cylinder to adjust the position of the front flex board.
	Worn elements in the working sections.	Replace worn elements in working sections.
The implement does not fold.	Hydraulic valve closed.	Check the valve setting.
The implement does not unfold.	Hydraulic valve closed.	Check the valve setting.
	Security hooks closed (mechanical lock system).	Pull the two strings to release the hooks.

9 - SPECIFICATIONS

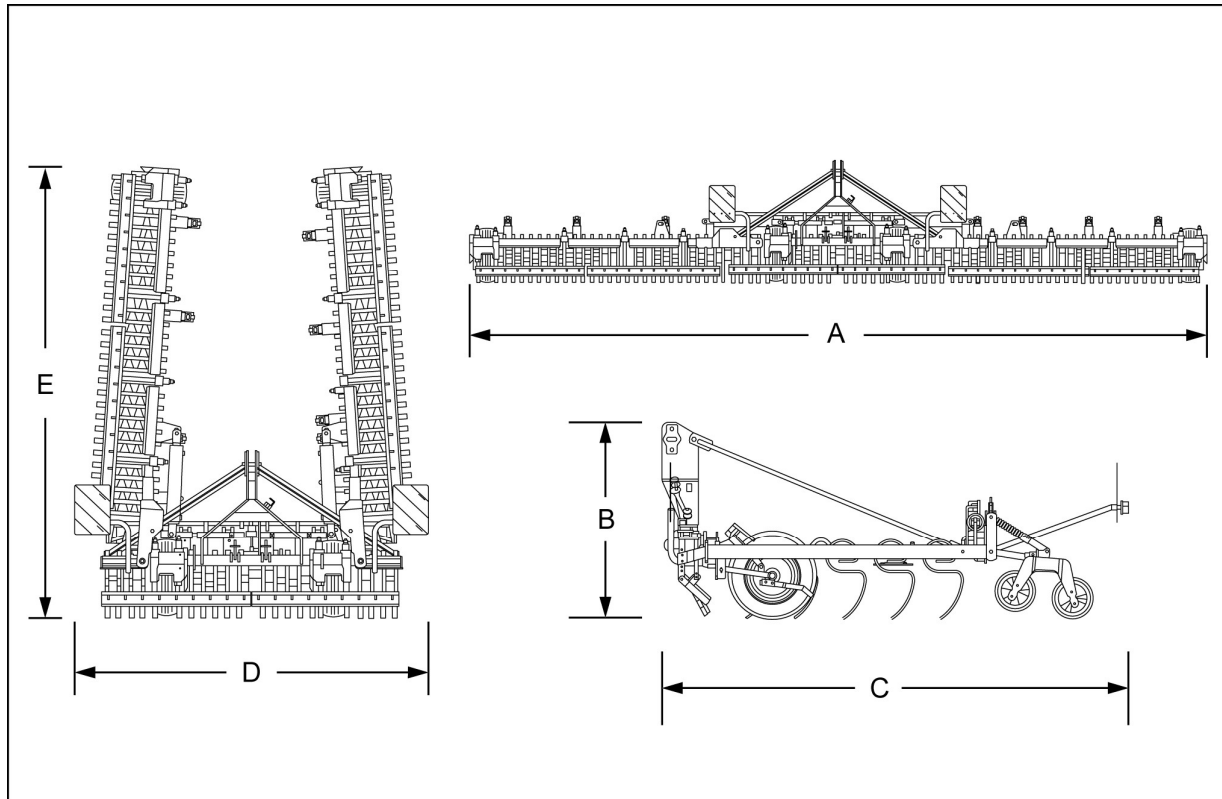
Technical data

Type	VM3055	VM3065	VM3075	VM3083
Working width	5.5 m (18 ft)	6.5 m (21.3 ft)	7.5 m (24.6 ft)	8.3 m (27.2 ft)
Transport width	3.0 m (9.8 ft)			
Transport height (with 30 cm (11.8 in) ground clearance)	2.79 m (9.15 ft)	3.19 m (10.47 ft)	3.69 m (12.11 ft)	4.09 m (13.42 ft)
Hydraulic folding	YES			
Cultivator weight	1375 kg (3031 lb)	1475 kg (3252 lb)	1725 kg (3803 lb)	1925 kg (4244 lb)
Level board weight	180 kg (397 lb)	195 kg (430 lb)	210 kg (463 lb)	226 kg (498 lb)
Double roller (C/R) weight	310 kg (683 lb)	345 kg (761 lb)	380 kg (838 lb)	415 kg (915 lb)
Hydraulic demands	One double acting outlet required			
Power demand	92 – 121 kW (125 – 165 Hp)	103 – 132 kW (140 – 180 Hp)	114 – 151 kW (155 – 205 Hp)	125 – 169 kW (170 – 230 Hp)
Maximum allowed power	147 kW (200 Hp)	184 kW (250 Hp)		

Number of tines

Type	VM3055	VM3065	VM3075	VM3083
S-tine (10 cm (3.9 in) tine space)	55	65	75	83
SQ-tine (8 cm (3.1 in) tine space)	69	81	93	103
SS-tine (10 cm (3.9 in) tine space)	55	65	75	83
VTM-tine (15 cm (5.9 in) tine space)	37	43	51	55

Dimensions



1

Type	VM3055	VM3065	VM3075	VM3083
A	5500 mm (216.5 in)	6500 mm (255.9 in)	7500 mm (295.3 in)	8300 mm (327 in)
B	1410 mm (55.5 in) – 1510 mm (59.4 in) with VTM tines			
C	3100 mm (122 in) – 3600 mm (141.7 in) with CDL and light kit			
D	2750 mm (108.3 in) – 2950 mm (116.1 in) with VTM tines			
E	2500 mm (98.4 in) – 2600 mm (102.4 in) with VTM tines	2890 mm (113.8 in) – 2990 mm (117.7 in) with VTM tines	3390 mm (133.5 in) – 3490 mm (137.4 in) with VTM tines	3790 mm (149.2 in) – 3890 mm (153.1 in) with VTM tines

Fluids, lubricants, and capacities

Application	Capacity	Product name	Specification(s)
Grease fittings	-	TUTELA MULTI-PURPOSE GR-9 GREASE or TUTELA 75 MD GREASE	NLGI 2 M1C 137-A or M1C 75-B

Tire pressure

Tire	Recommended pressure
24x8.00-14.5	3.2 bar (46.4 psi)

10 - ACCESSORIES

General information

Accessories or optional equipment listed hereafter may be part of the standard equipment for certain countries. Some of these accessories or options may not be available in certain markets.

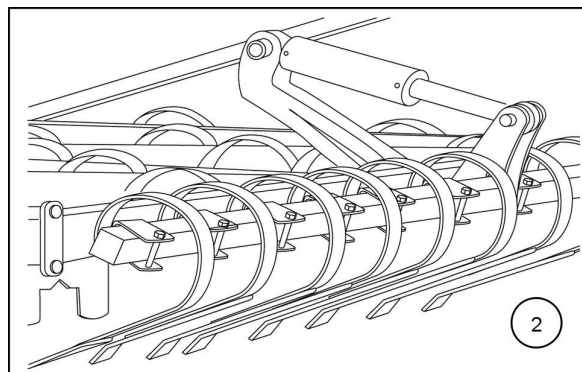
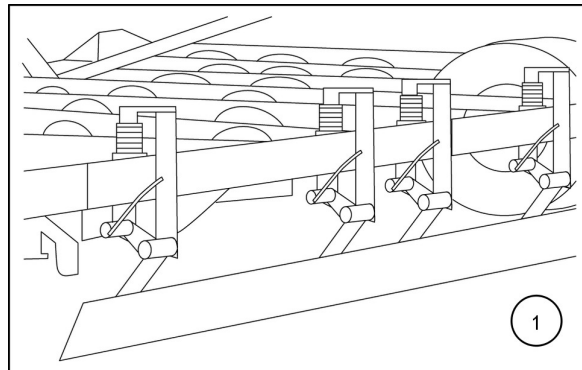
Levelling device

Three different levelling devices are offered.

- Levelling bar without spikes **(1)**.
- Levelling bar inclusive spikes **(1)**.
- Hydraulic levelling bar with depth scale **(2)**.

The mechanical levelling bar is easily adjusted by hand.

The hydraulic levelling bar is controlled from the cabin and the position revealed by a visible depth scale.



2

Tines

Four different types of tines are available for the seedbed cultivators:

- S-tine
- SQ-tine
- SS-tine
- VTM-tine

The S-tine and SQ-tine are different in terms of overall geometry. The SQ-tine is more aggressive in terms of mixing due to the angle of the share. The SQ-tine is less curved, hence not as intensive mixing and less risk of bringing up wet soil and big clods.

The SS-tine rely on the same overall design as the SQ-tine, but is a bigger and more durable tine for heavy and clay soil.

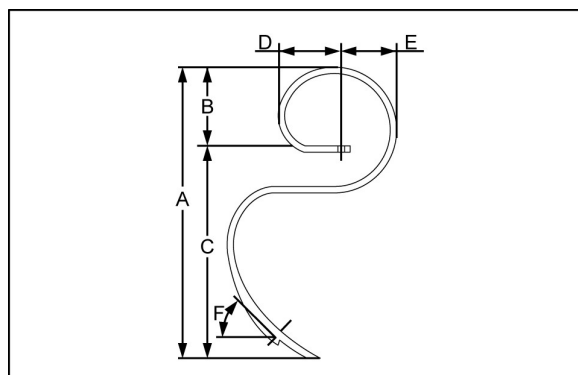
The VTM-tine stands out in terms of versatility, as the tine works in most conditions, in ploughed soil and also soils with residues left over. The tine can be mounted with a goose foot share for shallow seedbed cultivation and weed control.

The main specifications of the four different tines are listed below.

Type of tine	S-tine	SQ-tine	SS-tine	VTM-tine
Cultivation angle	44°	60°		50°
Frame height	39 cm (15.35 in)	40 cm (15.75 in)	42 cm (16.54 in)	49 cm (19.29 in)
Dimensions	32 mm (1.26 in) x 10.5 mm (0.41 in)	32 mm (1.26 in) x 12.5 mm (0.49 in)	45 mm (1.77 in) x 11 mm (0.43 in)	50 mm (1.97 in) x 10.8 mm (0.43 in)
Tine spacing	10 cm (3.94 in)	8 cm (3.15 in)	10 cm (3.94 in)	15 cm (5.91 in)
Working depth	3 – 9 cm (1.18 – 3.54 in)		3 – 12 cm (1.18 – 4.72 in)	3 – 15 cm (1.18 – 5.91 in)
Dimension of share	35 mm (1.38 in) x 6 mm (0.24 in)		35 mm (1.38 in) x 8 mm (0.31 in)	63.5 mm (2.50 in) x 8 mm (0.31 in)
Where to use				
Light soil	X	X	—	X
Medium soil	—	X	X	X
Heavy soil	—	—	X	X

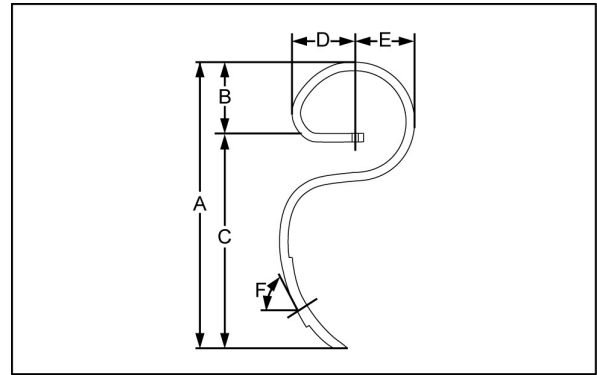
S-tine

- A = 554 mm (21.81 in)
 B = 160 mm (6.30 in)
 C = 394 mm (15.51 in)
 D = 115 mm (4.53 in)
 E = 105 mm (4.13 in)
 F = 44°



SQ-tine

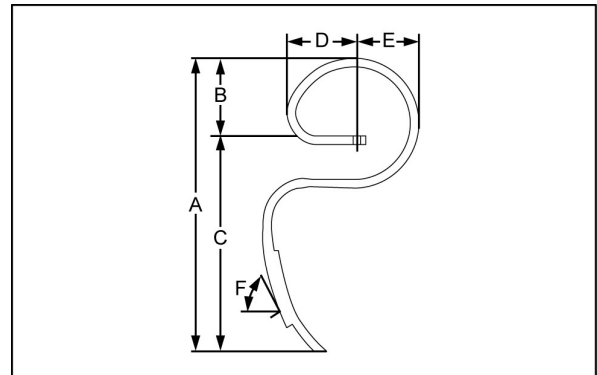
A = 534 mm (21.02 in)
 B = 133 mm (5.24 in)
 C = 401 mm (15.79 in)
 D = 117 mm (4.61 in)
 E = 109 mm (4.29 in)
 F = 60°



2

SS-tine

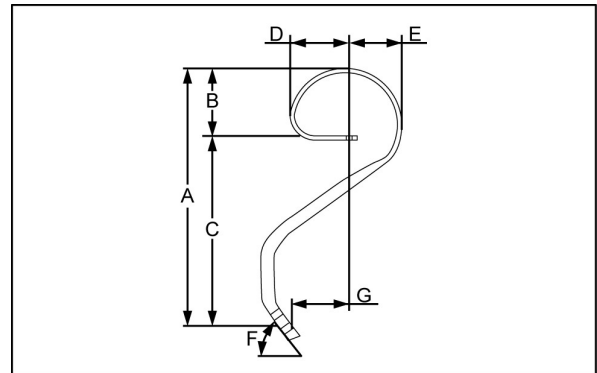
A = 561 mm (22.09 in)
 B = 146 mm (5.75 in)
 C = 415 mm (16.34 in)
 D = 129 mm (5.08 in)
 E = 116 mm (4.57 in)
 F = 60°



3

VTM-tine

A = 604 mm (23.78 in)
 B = 156 mm (6.14 in)
 C = 448 mm (17.64 in)
 D = 140 mm (5.51 in)
 E = 122 mm (4.80 in)
 F = 50°
 G = 138 mm (5.43 in)



4

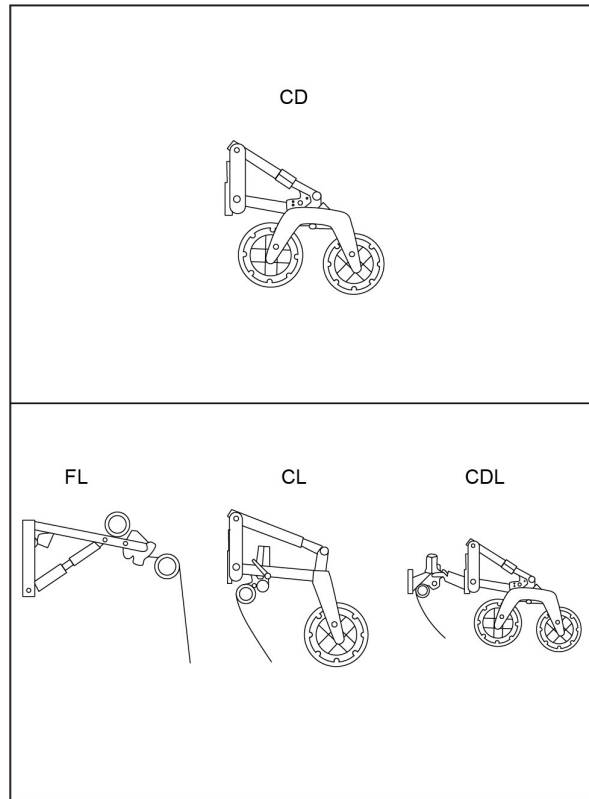
Rollers

In addition to the wide range of tines available, the seedbed cultivators comes with five different rollers combinations and one optional rear harrow.

The combination of two rollers (CD/CDL) ensure a superb crumbling and re-consolidation.

The C-roller is more suitable for clay and hard soils with special need for intense cutting effect.

The FL tine harrow is the light and flexible choice. The depth, pressure and angle of the roller and rear harrow is easily adjusted with special tool mounted on cultivator.

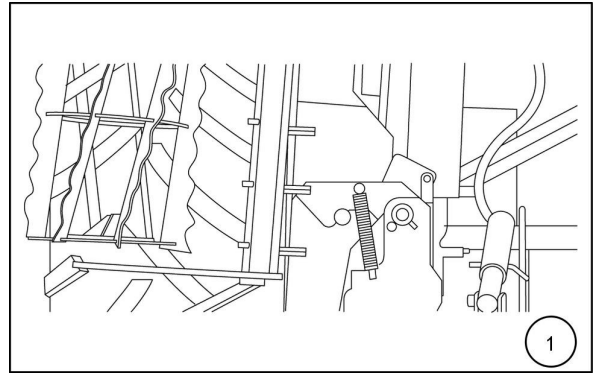


Wings lock system

All the seedbed cultivators fold or unfold by the use of hydraulic cylinders. The implements fold vertical, hence in order to meet the safety requirements, two different wing lock systems are offered.

- Mechanical wing lock.
- Hydraulic wing lock **(1)**.

The mechanical wing lock system, utilize same components as the hydraulic solution. The main difference between the two kits, is the presence of a wire to pull by hand instead of hydraulic action.



1

Signal plates and lights

The seedbed cultivators can optionally be equipped with both signal plates and lights. A kit is offered including both options.

11 - FORMS AND DECLARATIONS

European Community (EC) Declaration of Conformity

ACCORDING TO DIRECTIVES 2006/42/EC & 2014/30/EU

Inside the European Community and for some specific countries, an EC Declaration of Conformity is separately delivered with your implement. The EC Declaration of Conformity is the manufacturer's declaration about equipment compliance to relevant European Union (EU) provisions.

Store the EC Declaration into a safe place like the storage box for your operator's manual. Local authorities may require you to show this document in order to assure compliance of your equipment.

Translation of this declaration in your own country language is provided on the original document.

For your better and easier understanding of the document, you will find the text reproduced hereafter.

EC/EU Declaration of Conformity
According to Directives 2006/42/EC & 2014/30/EU

We,

declare under our sole responsibility, that the product:

Agricultural machine

Commercial Name KONGSKILDE - SEKO SRL and Model: ...

Denomination: Tillage

Type (Specify any variant/version): ...

Planning key: ...

Serial Number: ...

to which this declaration relates, fulfills all the relevant provisions of
Directives 2006/42/EC & 2014/30/EU, amended by: -

For the relevant implementation of the provisions of the Directives, the
following (harmonized) standards have been applied:

- EN ISO 12100:2010

Name, position, and address of the authorized person to compile the
Technical Construction File:...

Place and date of the declaration:

Signature, name and position of person empowered to draw up the EC
Declaration of Conformity:

Index

	2	
20 hours grease fittings.....		7-10
	A	
Adjustment of the level board.....		6-4
Adjustment of the long finger rear harrow		6-11
Adjustment of the maximum flow time		6-10
Adjustment of the rear rollers		6-7
Adjustment of the working depth		6-3
	C	
Check before use.....		4-1
Connection to the tractor.....		4-2
	D	
Dimensions.....		9-2
Disconnection and parking		4-4
	E	
Ecology and the environment.		2-15
Electro-Magnetic Compatibility (EMC)		1-5
End of season service		7-14
European Community (EC) Declaration of Conformity		11-1
	F	
Fire or explosion prevention		2-3
Fluids, lubricants, and capacities		7-8, 9-3
Folding and unfolding		5-2
Front flex board position		6-6
	G	
General		7-1, 8-1
General information		10-1
General recommendations		2-2
Grease fittings and intervals		7-6
	H	
Hazardous chemicals.....		2-4
Hydraulic hoses		7-12
	I	
Illustrations		2-3
Implement long-term storage and/or disposal		7-15
Implement orientation		1-10
Implement stability		2-14
Intended use		1-4
	L	
Levelling device		10-1
Lifting the implement		5-4
Local obligations		2-3
	M	
Maintenance.....		2-11
Manual scope and required training level		1-6

N

Note to the owner	1-1
Nuts and bolts	7-9, 7-11

O

Operating principles.	3-1
Operating the implement safely.	2-8
Operator's manual storage on the machine.	1-9
Ordering parts and / or accessories	7-17
Overview	7-9

P

Personal Protective Equipment (PPE)	2-12
Pressure washing.	7-7
Product identification	1-9
Product Identification Number (PIN)	1-8
Prohibited usage	1-4

R

Rollers	10-4
---------------	------

S

Safety requirements for fluid power systems and components - hydraulic systems	2-13
Safety rules and signal word definitions	2-1
Safety signs	2-16
Signal plates and lights	10-5
Starting up the implement safely	2-5
Stopping the implement safely	2-10

T

Technical data	9-1
Tines	6-3, 10-2
Tire pressure.	9-3
Torque	7-3
Transport position.	5-1
Travelling on public roads	2-6
Troubleshooting	8-1

W

Wheels and tires	7-13
Wings lock system	10-5
Working adjustment.	6-1

Dealer's stamp



The manufacturer and its authorized representative reserves the right to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at the time of publication, but are subject to change without notice.

Availability of some models and equipment builds varies according to the country in which the equipment is being used. For exact information about any particular product, please consult your Kongskilde - Seko Srl dealer.



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